

Bill 25 (2019)
Early Testimony

Speaker Registration/Testimony

Name Joseph Kohn MD
 Phone 8083596605
 Email Joseph@WeAreOne.cc
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item BILL 25 (SOLAR WATER HEATING AND EV READINESS)
 Your position on the matter Support
 Representing Organization
 Organization We Are One, Inc. - www.WeAreOne.cc - WAO
 Do you wish to speak at the hearing? No

Dear ZPH Chair Menor and Committee Members,

I strongly support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents.

Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

Written
Testimony

2. Help to fight our climate crisis.

Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership!

We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about saving consumers money.

Here's your chance to set an example. Take it!

[1] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

Thank you for the opportunity to testify.

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Wendell Elento
 Phone 8088451351
 Email wendell@islandsignal.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item BILL 25
 Your position
 on the matter Comment
 Representing Organization
 Organization BOMA
 Do you wish to
 speak at the
 hearing? Yes

Written
 Testimony

My name is Wendell Elento and I serve on the Government Affairs Committee for the Building Owners Managers Association Hawaii Chapter. We support Bill 25 but please reconsider the 25% mandate and lower it to 10%, as 25% is excessive. We also humbly ask that incentives be provided for adoption. We look forward to working with all stakeholders. Again, the 25% mandate of total parking spaces is much too high and please provide incentives for adoption. Mahalo.

Testimony
 Attachment
 Accept Terms
 and Agreement 1

IP: 192.168.200.67



183 Pinana St., Kailua, HI 96734 • 808-262-1285 • info@350Hawaii.org

To: The Committee on Zoning, Planning and Housing
From: Brodie Lockard, Founder, 350Hawaii.org
Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear Chair Menor, Vice Chair Waters, and Members of the Zoning, Planning and Housing Committee,

350Hawaii.org writes in strong support of Bill 25.

We ask you to reject self-serving, spurious arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few **homeowners** will have a choice of water heater type. Only the **developers** have that choice. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with what the developers chose, usually meaning eternal gas bills. Developers usually choose gas, because it's **cheaper for them** when they build.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they will base their choice on money only.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking. Hawaii has decided that we should give up the **choice** of plastic bags, because that tiny imposition on individuals benefits us significantly as a society. And gas is far more important.

As to affordable housing, Bill 25's requirements will indeed increase costs **for three to four years** while the solar water installation cost is being paid off, but then that affordable housing will become **even more affordable**, because there will **never** be a gas bill. EV-readiness adds a slight cost, but it will soon be a part of normal 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Big developers are objecting to this extra expense. Will they **really** suffer from such a tiny dent in their enormous profits? Are they going to stop building in Hawaii because they have to spend \$920 more on each parking stall? Of course not.

Whether you support items 17, 28 and 31, and our proposed amendments, translates to this: will you allow renters and homeowners to save money in the long term, or will you give big developers and Hawaii Gas more profits, **and** approval to burn more fossil fuels than they

already do?

Natural gas is an anachronism hindering us from making the emissions cuts we need to reach our clean energy goals. Defending the natural gas industry and its employees is like defending the tobacco industry and its employees. Besides, this bill applies only to **new** buildings. If someone has a job in the gas industry now, they will still have it after Bill 25, serving every existing gas customer. This bill does nothing to cut jobs.

Beyond the modest but crucial requirements in items 17, 28 and 31, 350Hawaii.org asks the committee to carefully consider three amendments:

1. Level 2 EV charging

Please incorporate Councilmember Kobayashi's amendments affecting ***items 17 and 31 of Section 3 only***. Level 2 EV-readiness is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

EVs are coming fast and hard. Volkswagen says it will stop making gas-powered cars entirely in 2026 [1]. Mercedes-Benz, Volvo, and Jaguar Land Rover will change their entire vehicle lines to EVs and EV hybrids by 2022. GM will drop all their gas-powered vehicles by an unspecified date. Ford, Toyota, Mazda, and the Renault-Nissan-Mitsubishi alliance are all spending billions on EV technology, and will each introduce from 10 to 50 new EV models within the next one to seven years [2].

The need for more EV charging stations on Oahu is glaring. The easiest and cheapest place to add them is in new building construction. The easiest place to use them is at home.

Level 1 charging is distressingly inadequate for the many drivers who would like to use an EV daily for a long commute. Level 1 provides only about four miles of driving range per hour of charging. That severely limits range, to perhaps 50 miles, depending on the specific car. And if you go anywhere after work, you lose both voltage and charging time. Level 2 charges three to four times as fast, and according to Tesla, who would know, Level 2 costs only a few hundred dollars more to install during construction than Level 1. Compared to other looming climate-related costs, this is miniscule.

Volvo found in February that 51% of EV drivers charge their cars at home; only 16% charge at work [3]. Nearly every Hawaii resident will eventually have an EV and need somewhere to charge it. Will they be forced to somehow pay to install the electrical equipment needed to charge at home? How will they afford that?

Volvo also found that ***slow Level 1 charging is keeping people from buying EVs***. Fifty-eight percent of consumers have avoided buying one because of range anxiety [3]. It's the primary reason people aren't buying EVs. Too few charging stations is second, at 49%.

If most people charge at home (51%, recall) and they're afraid their Level 1 charging can't get them safely through their day, they're not going to buy an EV. Range anxiety is a major barrier to large scale adoption of EVs [4][5]. Hawaii's clean energy goals demand that we adopt EVs heavily and quickly, and Level 1 is not sufficient.

When people experience Level 1's delays, many will want Level 2, costing them unnecessary money and trouble to upgrade themselves.

Level 2's faster charging will have another very important benefit: charging is more likely to be mostly completed during daylight hours, increasing the percentage of solar energy used for charging.

Jurisdictions across the U.S. are already standardizing building requirements to Level 2 in recognition of Level 1's limitations. Hawaii should be leading this trend, not playing catch-up.

Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EVs they will be driving in the 2020s or 2030s.

2. Percentage of parking stalls

Please also raise the EV-ready parking stall amount in item 17 from 25% to 75%. Vancouver's requirement is 100%. In the next few years, 25% will already be inadequate. Let's not go through this again then.

Seventy-five percent is not overly ambitious or forward-looking.

A Vancouver, BC bylaw that took effect on January 1, 2019 requires developers to not just make the parking stalls of new multi-unit residential buildings EV-ready, but to **actually install electric vehicle chargers on every stall** [6].

Vancouver also began with a low percentage of EV-ready stalls, but only nine years later realized they had aimed far too low.

The new requirement modifies a 2009-approved policy that mandates chargers for 20% of the parking stalls in new multi-unit residential buildings, 10% in new commercial buildings, and each garage or carport for a single-family attached and detached residence.

Even earlier, in December 2017, the Richmond, BC City Council began requiring that all new residential parking spaces include an outlet capable of "Level 2" EV charging [7].

3. "RENEWABLE ENERGY"

Please Refine the definition of "RENEWABLE ENERGY" on page 5.

This term has been co-opted by entities whose activities technically meet the State's definition, but in practice do immeasurable harm to the environment in a mind-boggling variety of ways.

Currently, this deceit is exemplified most egregiously by the Hū Honua Bioenergy plant on Hawaii Island. Hū Honua proposes to [8]:

- Cut five acres of trees per day, adding up to thousands of acres of trees across the island;
- Drive five or six logging trucks per hour (on "light" days) to their power plant in Pepe'ekeo (the County struggles to maintain these roads and bridges with current traffic);
- Burn the trees, releasing about 300,000 tons of greenhouse gas emissions per year, as well as additional pollutants affecting air quality along the coast;
- Draw 21.6 million gallons of water per day from the Hakalau aquifer to cool the turbines (the entire district of North Kona consumes only half that);
- Add over two dozen hazardous chemicals to the water to clean the turbines;
- Inject the used water into 800-foot deep injection wells 80 feet from the edge of geologically unstable cliffs;
- Allow the hot, contaminated water to rise up through the ocean seabed to directly impact coral reefs and critically endangered Hawksbill turtles;
- And finally, overcharge for electricity—double the current cost of solar power, which is dropping exponentially worldwide.

Under the definition in Bill 25, this litany of environmental horrors is, legally, "renewable energy." But would anyone imagine that the term is meant to describe such a nightmare?

To prevent such atrocious misuse of the term, 350Hawaii.org requests that source 7 in the definition of **RENEWABLE ENERGY** in SECTION 3(11) be amended as follows (**bold and underlined** indicates additions):

7. Biomass, including biomass crops the use of which would not produce significant net lifecycle greenhouse gas emissions or cause any other significant environmental harm, agricultural and animal residues and waste, and municipal solid waste and other solid waste;

Items 17, 28 and 31 in Bill 25 will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [3]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership! We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up.

You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about saving consumers money.

Here's your chance to set an example. Take it!

Brodie Lockard
Founder, 350Hawaii.org

[1] <https://fortune.com/2018/12/05/volkswagen-ending-gas-powered-cars/>

[2] <https://mashable.com/2017/10/03/electric-car-development-plans-ford-gm/>

[3] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

[4]

https://www.researchgate.net/publication/224880220_Sustainable_transportation_based_on_electric_vehicle_concepts_a_brief_overview

[5] <http://www.innovations.harvard.edu/cache/documents/11089/1108934.pdf>

- [6] <https://dailyhive.com/vancouver/electric-vehicle-chargers-residential-buildings-vancouver-2018>
- [7] <https://www.richmond.ca/sustainability/energysrvs/electricvehiclecharge.htm>
- [8] <https://www.malamahamakua.org/>



**Written Statement of Elemental Excelerator
before the Honolulu City Council Committee on Zoning, Planning, and Housing
Thursday, August 22, 2019**

**In Consideration of Bill 25
Relating to the Adoption of the State Energy Conservation Code**

Aloha Chair Menor, Vice-Chair Waters, and Members of the Committee on Zoning, Planning, and Housing:

Elemental Excelerator respectfully submits support for Bill 25, which regulates the design and construction of residential and commercial buildings for the effective use of energy through the adoption of the State Energy Conservation Code (2017), subject to local amendments by the City and County of Honolulu.

Elemental Excelerator is a Honolulu-based growth accelerator program founded and operating in Hawai'i. We have awarded over \$30 million to 82 companies resulting in 56 demonstration projects in Hawai'i & Asia Pacific. Each year, we evaluate over 500 companies and look for innovative entrepreneurs from around the world to come to Hawai'i and find transformative solutions to help us achieve our 100% clean energy goals and solve our most pressing environmental problems. We select 15-20 companies annually that best fit our mission and fund each company up to \$1 million.

In April 2018, Elemental Excelerator commissioned a study entitled *Transcending Oil: Hawai'i's Path to a Clean Energy Economy*. The study found that in Hawai'i, transitioning to renewable energy is cheaper than sticking with oil. The faster we go, the cheaper it will be. As a policy recommendation, the study identified following through and enforcing current clean energy policies by fully funding and implementing building codes and standards. The report also found that "*Energy efficiency efforts increased over the past decade, led by Hawaii Energy's electric savings programs and a push to update building codes.*"¹

We support Bill 25 for the following reasons:

1. **It is economically responsible:** According to a report by the National Institute of Building Sciences, for every \$1 invested in updating building codes, it yields an \$11 benefit. Updating building codes increase resiliency and mitigate potential costs that could come from natural disasters caused by climate change.²
2. **It opens up opportunities for innovation:** Updating our energy codes can address the rapid changes in technology that innovation has developed. In particular, the sections that provide guidance on grid interactive water heaters and electric vehicle charging

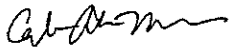
¹ Larsen, J., Mohan, S., Herndon, W., Marsters, P., & Pitt, H. (2018, May 01). *Transcending Oil: Hawai'i's Path to a Clean Energy Economy*, p.13 and 37, Retrieved from <https://rhg.com/research/transcending-oil-hawaiis-path-to-a-clean-energy-economy/>

² <https://www.nibs.org/news/432994/National-Institute-of-Building-Sciences-Issues-Interim-Report-on-the-Value-of-Mitigation-.htm>

infrastructure support the deployment of commercial ready clean energy innovation. About 17% of Elemental Excelerator's 82 portfolio companies, such as Hawai'i grown company Pono Home and Shifted Energy, focus on building efficiency, demonstrating an increased opportunity to attract innovation with forward-thinking policies such as Bill 25.

Mahalo for the opportunity to provide testimony.

Sincerely,

A handwritten signature in black ink, appearing to read 'Aki Marceau', written in a cursive style.

Aki Marceau
Managing Director, Policy and Community- Hawai'i



SHIFTED ENERGY®

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Zoning, Planning and Housing committee

REGULAR MEETING COMMITTEE MEETING ROOM THURSDAY, AUGUST 22, 2019 9:00 A.M.

August 22, 2019

Shifted Energy Supports Bill 25 Relating to the adoption of the State Energy Conservation Code

Aloha Chair Menor and members of the Zoning, Planning and Housing committee:

Thank you for the opportunity to submit testimony in **strong support** of Bill 25. The inclusion of grid-interactive water heater requirements within the Solar Water Heating mandate, in alignment with the International Energy Conservation Code, provides an important tool to enable Hawai'i to meet its renewable energy goals while ensuring that all ratepayers benefit from the realization of those goals.

Shifted Energy was founded in Hawai'i in 2014 from the energy efficiency and energy justice activities of non-profit Kanu Hawai'i. During our community engagement and outreach activities, we identified two key lessons that are relevant to the Council's current deliberations:

- 1) Low and moderate income families, multi-family dwelling residents, and renters are often not able to take advantage of emerging technologies, such as rooftop solar and home battery systems, that would reduce their electric bills and allow them to support renewable energy deployment; and
- 2) Electric water heating is the predominant form of water heating and makes up a disproportionately large percentage of many Hawai'i residents' electric bills.

Shifted Energy was incubated out of Kanu Hawaii with the goals of engaging hard-to-reach communities in the renewable energy transformation through utilization of their electric water heaters. We currently employ 6 people on Oahu, have just hired a new engineering graduate who we connected with through HTDC, and look forward to continue building our company in Hawaii in support of local innovation and job creation.

To understand the concept of 'grid-interactive water heating', it is important to first understand that Hawaii's 100% renewable energy generation portfolio mandate is requiring Hawaiian Electric to integrate increasing amounts of intermittent renewable energy. The intermittent nature of renewable energy generation means that 1) electricity production is not always aligned with customer demand, and 2) there are often rapid fluctuations in generation as clouds pass overhead. So as Hawaiian Electric adds more renewable generation to Oahu's electricity system, they must also:

- 1) Add ways to store solar energy for delivery later in the day;
- 2) 'Smooth' the rapid fluctuations to maintain the stability of the power grid; and
- 3) Reduce total electricity demand during periods when renewable generation is not high (e.g., during the night) through energy efficiency or demand *shifting*.

As the Council is likely aware, grid-scale and customer-sited energy storage batteries are able to provide all of the above services and Hawaiian Electric is actively procuring solar and energy storage projects to do just that. But these batteries typically utilize lithium-ion chemistry, which is currently fairly expensive (preventing many homeowners from being able to purchase them) and present safety issues that make procurement, permitting, and deployment a challenge. Safe, inexpensive alternatives would enable rapid scaling of energy storage technology and integration of renewables.

Enter Grid-Interactive Water Heating.

Water heater tanks are essentially large cylinders that store *thermal* energy, and there are hundreds of thousands of them across Oahu. Shifted Energy has developed an inexpensive, non-intrusive control device that can be attached to any electric water heater to convert it into a customer-sited battery. When deployed for apartment or condominium renters and owners, Shifted's controllers essentially transform the entire building into a giant battery simply by upgrading existing electric water heater assets. These batteries will then respond to control signals from Hawaiian Electric to support grid stability and renewable integration. Hawaiian Electric then compensates the host customer for the 'grid support services' that those water heaters provide and Shifted's intelligent software ensures that families always have hot water when they need it.

Because so many families already have such water heaters and the cost of the controller is low, including grid-interactive water heating in Bill 25 and the City and County electric codes ensures that hard-to-reach families can finally participate in and benefit from the clean energy revolution and Oahu can rapidly scale a cost-effective technology to support safe, low-cost renewable energy integration.

For the foregoing reasons, Shifted Energy **strongly supports** this measure.

Mahalo,

Forest Frizzell, CEO
Shifted Energy



August 20, 2019

Committee on Zoning, Planning, and Housing
Honolulu City Council
530 South King Street, Room 202
Honolulu, HI 96813-3077

Re: Support for City and County of Honolulu Bill 25 (2019)

Dear Honorable Chair Ron Menor and Members,

The Greenlink Group (Greenlink) would like to offer this letter in support of the passage of Bill 25 (2019) on the Adoption of the State Energy Conservation Code, with particular regard to the amendment of Subsection R403.5.5 of the IECC on solar water heating.

Greenlink is a partner to the City and County of Honolulu through Bloomberg Philanthropies' American Cities Climate Challenge (ACCC). We are a clean energy research consulting firm that specializes in energy efficiency, renewable energy, and urban sustainability. Our mission is to use our award-winning analytical technologies to help create smarter, cleaner, and more equitable communities.

As a part of ACCC, Greenlink was engaged to conduct analysis on the proposed R403.5.5 amendment, in which residential single-family buildings shall use solar, wind, or another renewable energy source for not less than 90 percent of the energy for service water heating. Our research has found that by 2050 in Honolulu, solar water heaters not only produced the lowest amount of total carbon emissions in comparison to electric resistance, instantaneous natural gas, and heat pump water heaters, but also were the least-cost options on a total and operating-cost basis for residents. Furthermore, when the social costs of water heating (defined as damages to public health and welfare caused by CO₂, VOC, NH₃, NOX, and SO₂ pollutant emissions) were factored in to the policy analysis, solar water heaters remained the least-cost option in comparison to electric resistance and instantaneous natural gas water heaters.

In fact, our analysis suggests that solar hot water heaters are the lowest economic and social cost option: adopting the amendment of Subsection R403.5.5 would result in at least \$1 billion in environmental and costs savings for Oahu's economy over the next 30 years. Savings could potentially exceed \$1.5 billion. Therefore, the amendment appears to be a financially and environmentally responsible option for Honolulu as it moves towards its goal of achieving 100% renewable energy on O'ahu by 2045. If you have any questions about Greenlink's analysis or support, please do not hesitate to reach out to us at info@thegreenlinkgroup.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Cox". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Matt Cox
CEO, Founder
The Greenlink Group

695 Pylant Street NE #110 Atlanta, GA 30306

thegreenlinkgroup.com



August 20, 2019

Bill 25: Energy Code Update

Re: Hawaii Bill 25: Introduction of EV Readiness

Aloha Chair Menor, Vice Chair Waters, and members of the Committee.

Thank you for your continued attention on Bill 25 and related support. Forth is pleased to offer this letter of support to help Hawai'i's journey towards 100% clean energy through the Bill 25 Energy Code Update.

Forth is a nonprofit partner to the City of Honolulu for the Bloomberg American Cities Climate Challenge with a mission to promote, support, the advancement of electric mobility. Forth encourages support for the addition of Electric Vehicle Readiness to the Bill 25 Energy Code Update. EV readiness for retrofits can cost 4 to 8 times more than ensuring EV readiness during new build construction. This update to the code directly supports the Administration's commitment to transform all ground transportation to renewable fuels by 2035.

Our experience has found that addressing and planning for electric transportation early can lead to an acceleration in the implementation of electric vehicle charging infrastructure and electric vehicle ownership and use. Costs for such efforts, according to our partners in the building and trade sectors, can be de minimis and should not distract from the overall benefits from such action. Best practices such as these are being implemented around the country and stand out as one of the easiest ways to support a long-term transition to electric transportation.

If you have any questions, about this engagement or Forth's role please don't hesitate to reach out.

Best,

A handwritten signature in black ink that reads "Zach Henkin". The signature is fluid and cursive, with a prominent "Z" and a long, sweeping underline.

Zach Henkin

Deputy Director, Forth

503.803.3036



August 20, 2019

Bill 25: Energy Code Update

Re: Hawaii Bill 25: EV Infrastructure Requirements

Dear: The Honorable Ron Menor, Chair of Members,

The Electrification Coalition is pleased to offer this letter of support for the Bill 25 Energy Code Update to help accelerate electric vehicle adoption and for Hawaii to achieve its goal of transitioning all transportation to renewable fuels by 2035.

The Electrification Coalition (EC) is a nonpartisan, not-for profit group of business leaders committed to promoting policies and actions that facilitate the deployment of electric vehicles on a mass scale in order to combat economic, environmental, and national security dangers caused by our dependence on oil. Electric Vehicles plug into a grid that is domestic, diverse, and can insulate our business and consumers for the volatile nature of oil prices.

The Electrification Coalition has supported EV ready requirements around the country as an important policy that can help accelerate EV adoption. Making charging more convenient and accessible to consumers by requiring small investments at the time of construction will save developers and consumers money while building access to charging to power the future of transportation.

We strongly support this effort by Hawaii to put in place policies that provide the foundation for higher rates of EV growth in the state with passage of this ordinance relating to the adoption of the state energy conservation code.

If you have any questions, about this letter or the Electrification Coalition's role, please don't hesitate to reach out.

Sincerely,

Benjamin Prochazka
Vice President - Electrification Coalition
303-717-3657
www.ElectrificationCoalition.org

LOCAL #1 HI, IUBAC



International Union of Bricklayers and Allied Craftworkers Local #1 of Hawaii

2251 North School Street, Honolulu, HI 96819

Phone: (808) 841-8822 • Fax: (808) 777-3456

The Honorable Ron Menor, Chair
The Honorable Tommy Waters, Vice Chair
Committee on Zoning, Planning and Housing
530 South King Street, Room 200, Honolulu, Hawai'i 96813

Statement of Local 1, Proposing Amendments to Bill 25

Dear Chair Menor, Vice Chair Waters, and Members:

The members and signatory contractors of International Union of Bricklayers and Allied Crafts Local 1 perform work relating to concrete, brick, tile, stone, marble, terrazzo, cement, and plaster. Some of this work directly relates to Subsection C402.2.3 of the State Energy Conservation Code ("SECC"), regulating thermal resistance of above-grade walls. This subsection of the SECC is addressed in paragraph (12) of Bill 25 (2019).

We support the amendments proposed by Hawaii LECET to Bill 25 (2019), a copy of which can be found on the second page of our testimony. These amendments will help the code to be best tailored to Hawaii's unique climate to help consumers and builders alike achieve energy efficiency and cost savings.

We note that amendments to other parts of the bill have been proposed by various stakeholders. Recognizing that there is not consensus on a number of important issues, such as EV parking requirements and solar water heater requirements, among others, we encourage the committee to work diligently to include all stakeholders, collect data, and pass a revised bill which will address the concerns of everyone involved.

In closing, we thank you in advance for your consideration of the amendments proposed by Hawaii LECET and supported by our union, and look forward to your continued support of the hardworking men and women in Hawaii's construction trades.



International Union of Bricklayers and Allied Craftworkers Local #1 of Hawaii

2251 North School Street, Honolulu, HI 96819

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PROPOSED AMENDMENTS TO BILL 25 (2019) SECTION 3, SUBSECTION (12)

C402.2.3 Thermal resistance of above-grade walls. The minimum R-value of materials installed in the wall cavity between framing members and continuously on the wall shall be as specified in Table C402.1.3, based on framing type and construction materials used in the wall assembly.

wood framed, metal framed, and mass walls

Exception: Continuous insulation for ~~wood and metal framed walls~~ are not required when one of the following conditions are met:

1. Walls have a covering with a reflectance of equal to or greater than 0.64 and/or overhangs with a projection factor equal to or greater than 0.3;
2. Walls have overhangs with a projection factor equal to or greater than 0.3. The projection factor is the horizontal distance from the surface of the wall to the farthest most point of the overhang divided by the vertical distance from the first floor level to the bottom-most point of the overhang; or
3. Concrete, concrete masonry units (CMU), and similar mass walls are six inches or greater in thickness.

The R-value of integral insulation installed in CMUs shall not be used in determining compliance with Table C402.1.3. Mass walls shall include walls:

1. Weighing not less than 35 psf (170 kg/m²) of wall surface area.
2. Weighing not less than 25 psf (120 kg/m²) of wall surface area where the material weight is not more than 120 psf (1900 kg/m³).
3. Having a heat capacity exceeding 7 Btu/ft²•F (144 ~~cal~~^{kJ}/m²•K).
4. Having a heat capacity exceeding 5 Btu/ft²•F (103 kJ/m²•K), where the material weight is not more than 120 pcf (1900 kg/m³).

Exception: ~~Concrete, CMU, and similar mass walls are six inches or greater in thickness.~~



COMMITTEE ON ZONING, PLANNING AND HOUSING

City and County of Honolulu

August 22, 2019, 9:00 A.M.

(Testimony is 10 pages long)

TESTIMONY IN SUPPORT OF BILL 25 (2019), WITH SUGGESTED AMENDMENTS

Relating to the adoption of the State Energy Conservation Code

Chair Menor, Vice Chair Waters, and Members of the Committee on Zoning, Planning and Housing:

Blue Planet Foundation strongly supports Bill 25 (2019), a measure to modernize the City & County of Honolulu's (Honolulu's) building energy code. The proposed bill adopts a revised version of the Hawai'i Energy Code for Honolulu. These revisions would update Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while reducing energy use. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. ***We respectfully offer two proposed amendments on page 8 of our testimony to better “future-proof” new buildings to handle the rapid increase in zero emission vehicles.***

Blue Planet Foundation is a Hawai'i-based nonprofit organization. We work to clear the path for local, clean, renewable power. Through our advocacy for clean energy adoption, we seek to make our communities stronger, our energy more secure, our environment healthier, and our economy more robust. We appreciate Honolulu's growing leadership on clean energy issues.

As detailed below, the building energy code update proposed in Bill 25 is:

- enormously cost-effective for residents and business owners on O'ahu;
- consistent with the state's very strong policy directives in favor of energy conservation; and
- flexible to make compliance easier for builders.

The Code Updates Support the State's Energy Mandates in a Cost-Effective Manner

Energy efficiency is the most cost-effective energy resource available in the state, costing a fraction of fossil fuel-powered electricity.¹ The anticipated energy savings arising from the 2015

¹ Energy savings delivered by the state's Hawai'i Energy program in 2016 cost 2.06 cents per kWh. See *Hawaii*

IECC (International Energy Conservation Code) were tabulated in a May 2016 Report prepared for the Department of Business, Economic Development & Tourism (“DBEDT”).² When translated into dollars, the billions in savings plainly illustrate the enormous benefit of the proposed amendments.

Statewide Savings	2016	2026	2030	2036
MWh	12,962	1,083,590	1,991,059	4,702,738
\$	\$4,000,000	\$337,000,000	\$619,000,000	\$1,463,000,000

(Note: energy cost savings calculated here utilize the average retail cost of electricity over the past five years;³ this provides a conservative estimate of cost savings, because it does not factor a potential rise in energy prices.)

Extrapolating the savings for O‘ahu based on the percentage of energy used on the island versus statewide energy use, **the estimated 20-year savings for O‘ahu is over \$971 million under the proposed building energy code revisions (approximately \$318 million in residential energy savings and \$653 million in commercial energy savings).**

The substantial savings resulting from reduced energy use dwarf the associated costs. In its February 2016 report, the Pacific Northwest National Laboratory stated: “The 2015 IECC provides cost-effective savings for residential buildings in Hawai‘i. Moving to the 2015 IECC from the 2006 IECC base code is cost-effective for residential buildings in all climate zones in Hawai‘i.”⁴ Moreover, we understand that this cost-effectiveness may be *even higher* for many residential buildings in Hawai‘i, where immediate cost savings can be obtained via lower construction costs *and* lower energy costs by utilizing the particularly important portions of the code applicable to the tropical zone. In such instances, the “payback” period would be immediate.

Energy Conservation is a Bedrock Policy of the State

The energy landscape has shifted dramatically in the last decade. In 2015, Hawai‘i adopted the nation’s first 100% renewable energy mandate. Meanwhile, as Hawai‘i and other places around the globe have made smarter energy a priority, technologies for energy efficiency and other demand-side management strategies have progressed rapidly alongside.

Energy 2014 Annual Report, available at

https://hawaiienergy.com/images/resources/ProgramYear2016_AnnualReport.pdf. Even with today’s relatively low oil prices, electricity from oil-fired power plants costs around seven times more. See *DBEDT Monthly Energy Trends*, available at <http://dbedt.hawaii.gov/economic/energy-trends-2/>.

² See The Cadmus Group, Inc., *Energy Savings Forecast for the 2015 Int’l Energy Cons. Code with Haw. Amendments* (prep’d for DBEDT, May 2016), available at <https://energy.hawaii.gov/wp-content/uploads/2016/07/Energy-Savings-Forecast.pdf>.

³ See DBEDT Monthly Energy Trends.

⁴ Pac. Northwest Nat’l Lab., *Cost-Effectiveness Analysis of the Residential Provisions of the 2015 IECC for Hawaii* (prep’d for the U.S. Dept. of Energy by, Feb. 2016), available at https://www.energycodes.gov/sites/default/files/documents/HawaiiResidentialCostEffectiveness_2015.pdf

These policy and technical advancements have left a gap between the existing code (based on the IECC of 2006) and today's energy realities. The proposed 2015 update in Bill 25 will take important steps to narrow the gap.

In a state with no indigenous fossil fuels, it makes sense that energy conservation is a core principle. Indeed, the importance of energy stewardship and efficiency is directly embedded within Hawai'i's constitution:

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, **including . . . energy sources**, and **shall promote the development and utilization of these resources in a manner consistent with their conservation** and in furtherance of the self-sufficiency of the State.⁵

Similarly, state lawmakers have stated that planning for the state's infrastructure shall be directed toward the achievement of objectives that include: "Sequester more atmospheric carbon and greenhouse gases than emitted within the State as quickly as practicable, but no later than 2045";⁶ and "Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawai'i's dependence on imported fuels for electrical generation and ground transportation."⁷

To achieve these objectives, it is the official policy of the state to promote energy conservation through measures such as: "**Adoption of energy-efficient practices and technologies**" and "**Increasing energy efficiency and decreasing energy use in public infrastructure.**"⁸

These constitutional and legislative policy directives in favor of energy conservation strongly support Bill 25 to modernize the Honolulu building energy code.

The Code Updates Provide Compliance Flexibility to Builders

Many of the building energy code amendments in the proposed energy code update address Hawai'i's tropical environment. Further, they provide flexibility and options to builders to comply with the code, reducing construction costs and making compliance easier. Specifically:

- Walls of residential and commercial buildings are exempt from expensive exterior insulation requirements when they are shaded or have light-colored exterior coatings.

⁵ Haw. Const. art. XI, § 1 (emphasis added).

⁶ Hawai'i Revised Statutes (HRS) § 225P-3(a).

⁷ HRS § 226-18(a).

⁸ HRS § 226-18(c)(4) (emphasis added).

- Mass walls six inches and thicker in commercial buildings will not be required to have insulation. The national code requires R-5.7 continuous insulation, which would add substantially to the cost of construction.
- Lighting systems in commercial buildings may be designed to 70% of 2015 IECC lighting power density in lieu of installing complex daylighting and dimming systems which add to design, material and labor costs. The 70% option reaps greater energy savings than would the two control systems.
- Roof replacements in commercial buildings may be done with solar reflectance, attic ventilation or radiant barriers, substantially reducing construction costs compared to national code requirements.
- Homes will not be required to insulate floors to R-13, substantially reducing construction costs.
- Re-roofed homes will be allowed to comply with the options of ENERGY STAR roof coverings, radiant barriers, or attic ventilation in lieu of more expensive insulation requirements.
- The Tropical Code option section is designed for homes with no air conditioning or minimal air conditioning. The design eliminates the requirement for tight home construction and minimizes wall and roof insulation requirements. The point system rewards design promoting cross ventilation and large overhangs over walls and windows and other passive design features, lowering construction costs. An optimized Tropical Code home, compared to an air-conditioned home, reduces energy by as much as 48%.

The Code Makes Sensible Additions to Honolulu's Building Energy Code

In addition to the myriad energy saving additions incorporated in the updated IECC 2015 building energy code (as proposed for Honolulu), Blue Planet Foundation appreciates the inclusion of the following energy upgrades in this proposed ordinance:

- Sub-metering is required in commercial tenant spaces, providing more visibility into energy use for tenants and enabling them to take better control of their energy finances.
- Lanai doors in hotel and similar buildings shall include a switch that turns off the air conditioning if the door is not closed. This reduces energy costs and prevents warm moist air from coming into contact with cold surfaces, potentially causing condensation, mold, and health issues.

Bill 25 Wisely Provides High-Efficiency and Renewable Water Heater Options

Solar water heating is recognized as an incredibly efficient—and cost-saving—strategy for most homes. Since 2010, the state has required solar water heating in almost all new homes. But this law has a variance process for rare exceptions where solar just doesn't work. Unfortunately, this variance has been abused by developers, despite the legislature's clear intent that variances "will be rarely, if ever, exercised or granted." Consequently, nearly half of new homes proposed or being built today on O'ahu include fossil-fuel gas water heaters. Thousands of homes on the hot Ewa Plain of O'ahu are slated to be built with gas water heaters, locking future homeowners into higher energy costs over years of home ownership. Instead of being part of our clean energy future, these homes will contribute to climate change for decades into the future.

Bill 25 corrects the solar water loophole, ensuring that new homes built today come equipped with water heaters powered by the sun (or another renewable source), or—if a renewable source isn't cost effective—a water heater that works as a heat pump, a "smart" grid-interactive water heater, or a water heater that uses at least 90% renewable gas. Again, if a solar- or renewable-powered water heater does not make sense economically—based upon a lifecycle cost-benefit analysis that incorporates the average residential utility bill and the cost of the new solar water heater system with a lifecycle that does not exceed fifteen years—then one of the following technologies advancing clean energy may be used instead:

Heat pump water heater. A heat pump uses electricity to move heat from one place to another (like a refrigerator operating in reverse) rather than generating its own heat like a traditional electric water heater. This makes heat pumps two to three times more efficient, according to the Department of Energy (DOE). Heat pumps can also work to help cool homes. According to the DOE, a heat pump water heater can save an O'ahu household of four people nearly \$1,000 per year on their electric bill.

Grid-interactive water heater (GIWH). A GIWH is a smart water heater that uses intelligent controls that are capable of interacting with and participating in utility load control or demand response programs. This allows the water heater to be an asset on the utility grid by smoothing out electricity usage and increasing the use of variable renewable energy. A local company, Shifted Energy, has already deployed hundreds of GIWH systems across O'ahu.

Renewable gas water heater. A renewable gas water heater would heat water using no less than 90% renewable gas fuel. This could be natural gas or methane produced from renewable sources (such as biomass or methane from wastewater treatment plants or landfills), or hydrogen gas developed from renewable sources.

This addition to the proposed building energy code update provides flexibility to developers while ensuring that future homes will be built with high-efficiency or renewable water heaters.

Bill 25 Helps to Make Electric Vehicles More Accessible to Residents

Blue Planet Foundation strongly supports the inclusion of a limited “EV-ready” requirement for new commercial and multi-family residential construction in Bill 25. This is an important first step to lowering the overall cost of our transition to electrified transportation and make electric vehicles more accessible to O‘ahu residents. *We do, however, encourage the Council to strengthen this provision in Bill 25 (please see our proposed amendment at the end of this testimony).*

Electric vehicles (EV) are the fastest growing segment of new cars in Hawai‘i. Over the past year (May 2018 – May 2019), EV registrations on O‘ahu increased by over 30%, while registrations of gasoline-powered vehicles grew only 0.1 percent.⁹ We expect over 10,000 EVs registered statewide by the end of this year—a number that is expected to grow exponentially as new EV models with longer ranges and lower prices hit the market.

Electric vehicles will play an integral role in Hawai‘i’s clean energy future. While EVs that use the existing electricity grid to charge still use mostly fossil fuel, they use that fuel more effectively than burning fuel directly in a typical gasoline engine. This is why EVs are much less expensive to “fuel” per mile than their gasoline counterparts. Further, by using stored electrical energy, EVs can take advantage of intermittent solar, wind, and other clean energy resources. Most vehicles sit idle over 22 hours of the day, so they can become *de facto* energy storage devices if their batteries are plugged into the grid when they are not in use. With smart grid infrastructure in place, EVs become an essential component to electricity load and clean energy resource balancing—in addition to providing clean mobility solutions for Hawai‘i residents.

Still, over 600,000 gasoline-powered vehicles are on O‘ahu’s roads—and from them comes nearly five million metric tons of climate-changing carbon pollution. What’s worse, while O‘ahu has made decent progress in reducing its carbon emissions from the electricity sector, emissions from ground transportation have been increasing in recent years.

The International Energy Agency has found that “the availability of chargers emerged as one of the key factors for contributing to the market penetration of EVs.”¹⁰ Unlike gasoline car owners, charging behavior for EV owners indicates that more than 80% of EV drivers charge their cars at home or at work.¹¹ In addition, a large share of the Honolulu’s population lives in high density, multi-family residential buildings. The vast majority of parking facilities currently lack EV chargers.

By ensuring that we are “future-proofing” new construction projects, this measure is an important step toward increasing electric vehicle charging options for those who don’t have access to charging at home or at work.

⁹ DBEDT Monthly Energy Trends, June 2019 (<http://dbedt.hawaii.gov/economic/energy-trends-2/>).

¹⁰ *Global EV Outlook 2017*, <https://www.iea.org/publications/freepublications/publication/GlobalEVO Outlook2017.pdf>.

¹¹ *Id.*

Honolulu can expect more residents to choose EVs over gasoline vehicles as prices decrease. Battery costs have fallen precipitously over the past several years so that in many cases, the total cost of ownership for EVs is lower than for gasoline vehicles. Experts expect battery prices to continue to fall and as automakers increase the number of models and volume of EVs in the next few years, the upfront cost of EVs is expected to reach upfront cost parity with gasoline vehicles by 2024.¹²

In part due to falling costs and increasing consumer demand, and in part due to government policies supporting EVs, nearly all of the world's leading automakers have announced aggressive strategies and investments in EVs during the past two years.

The most challenging aspect of EV charger installation is the common lack of electrical capacity and distributed subpanels to support broad deployment of charging infrastructure. **By choosing not to install the wiring and conduit upfront in new construction, developers are forcing tenants to pay for expensive retrofit costs to upgrade power capacity and wiring to their parking stalls.**

Studies have shown that **installing EV infrastructure at the time of construction can be 91% less expensive than post-construction retrofits**, and per stall installation costs can be reduced through economies of scale.¹³ Vancouver, BC, found that the average cost of adding charging infrastructure during construction was about \$300 (CAD) per stall compared to an estimated \$3,300 for a later retrofit.

While this bill would not require the installation of the actual EV charging infrastructure, it would require that the power capacity and conduit be set up during construction, which would dramatically reduce retrofit costs at the time of charger installation, creating cost savings downstream for residents and tenants.

Cities around North America are adopting EV-ready requirements for commercial and residential new construction. Seattle, San Jose, Atlanta, San Francisco, and Oakland have adopted requirements for a certain percentage of stalls to be ready for Level 2 charging. Vancouver, British Columbia, now requires that 100% of new parking stalls be built ready for EV chargers. Honolulu—with the second highest adoption of EVs per capita nationwide—should implement a similar policy.

Electric vehicles are better for the environment and the economy and can help O'ahu reach its renewable energy and transportation goals. The time has come when Honolulu residents want to purchase electric vehicles but need convenient and affordable charging options. An EV-ready requirement will ensure that the EV charging infrastructure network necessary to support the

¹² See Bloomberg New Energy Finance, <https://bnef.turtl.co/story/evo2018>.

¹³ See <http://evchargingpros.com/wp-content/uploads/2017/04/City-of-SF-PEV-Infrastructure-Cost-Effectiveness-Report-2016.pdf>.

influx of electric vehicles can be installed more efficiently and cost-effectively in new construction projects. It will provide new EV owners—particularly those that will live in new multi-family residential buildings—with the confidence that they will be able to access charging at home, at the workplace, and in public spaces.

SUGGESTED AMENDMENTS

Blue Planet Foundation respectfully requests that Councilmembers consider two amendments to strengthen Bill 25 to better “future-proof” new multi-family homes and buildings to handle the rapid increase in zero emission vehicles:

1. First, we ask that the provision in Bill 25 for EV-ready infrastructure be amended to **require Level 2 EV-ready infrastructure** instead of Level 1 for multi-family residential construction with over eight parking stalls; and
2. Second, we suggest that the requirement for Level 2 EV-ready parking stalls to applied to **all new parking stalls** in multi-family and commercial buildings.

The current draft of Bill 25 requires that residential multi-family dwellings (with more than eight parking stalls) include at least 25% EV-ready stalls—but only equipped to handle Level 1 (or slow) charging infrastructure. This is woefully inadequate for meaningful vehicle charging and significantly reduces the opportunity to use vehicle charging for utility demand response or load control programs. Further, the current provision in Bill 25 is a departure from the EV-ready requirements that are increasingly being adopted around the country, which are standardized around Level 2 charging.

Level 1 charging, or “trickle charging,” means charging an EV using a standard 120-volt outlet. The rate of charge associated with this is roughly four miles of driving range per hour of charging. Below is a list of the most commonly purchased EVs and the associated charging time for a full charge from a Level 1 charger:

- Nissan Leaf – 1.7 to 2.6 days
- Chevy Bolt – 2.5 days
- Tesla Model 3 – 2.5 to 3.1 days

These charging times are impractical for most drivers and would likely lead to unnecessary cost for residents to later upgrade the electrical equipment to handle faster charging. To the degree the intent of the proposed EV-ready amendment is to ensure that buildings are constructed in a manner that can effectively support the decision of Honolulu residents to purchase an EV, this particular provision needs to be changed to require Level 2 charging.

Blue Planet Foundation also supports expanding this EV-ready requirement from 25% of new stalls to 100% of new parking stalls. With the rapid rate of change in the adoption of EVs, we expect that most new cars sold in Hawaii will be electric or hybrid within a decade. Yet Bill 25 as currently drafted only envisions 25% of new stalls needing future chargers. It is also unclear how these stalls will be allocated to future homeowners, tenants, or renters—will those who

would like to install an EV charger be able to access the one-in-four stalls that are EV-ready? This measure should reflect and anticipate the future where nearly all vehicles are zero emissions. This is particularly important given the slow of pace of updating Honolulu's building energy code. Failure to do so will lead to unnecessary expense in retrofitting relatively recent buildings with what will soon be commonplace amenities.

This is also an issue of equity. It's likely that the initial group of individuals purchasing EVs will be more affluent than latter adopters—this holds true for many innovations, as they are initially more expensive. They will be positioned to take advantage of the 25% of stalls that are EV-ready. But what about later adopters who are less affluent? this policy may have the effect of burdening these later EV adopters with the high costs of retrofitting to install EV infrastructure in already completed buildings. Simply requiring that all stalls are EV-ready avoids this potential inequity.

Requiring that all new parking stalls be EV-ready is not without precedent. Again, the city of Vancouver, BC, passed a law updating their four-year-old EV-ready requirement from 20% of new residential stalls to 100% of new stalls.¹⁴ The law took effect January 1 of this year. Since 2014, existing requirements have resulted in 20,000 electric vehicle-ready stalls in buildings.¹⁵ Other cities are considering similar 100% EV-ready policies.

To accomplish this, Blue Planet Foundation requests that the proposed language in Bill 25 relating to Subsection C406.8 should be modified as follows (underlined indicates additions, ~~strikethrough~~ indicates deletions):

C406.8 Electric vehicle infrastructure. All parking stalls in n~~buildings that have eight or more parking stalls,~~New residential multi-unit~~and new commercial buildings that have~~buildings,~~twelve or more parking stalls,~~shall be electric vehicle charger ready for at least 25~~percent of the parking stalls.~~As used in this section, "electric vehicle charger ready"~~means that sufficient wire, conduit, electrical panel service capacity, overcurrent protection devices and suitable termination points are provided to connect to a charging station capable of providing simultaneously an AC Level 4 2 charge per required parking stall for residential and multi-unit buildings. For commercial buildings, at least 25 percent of the parking stalls are required to be AC Level 2 charger ready.~~Charge method~~electrical ratings are provided below:~~

CHARGE METHODS ELECTRICAL RATING

Charge Method	Normal Supply Voltage (Volts)	Maximum Current (Amps – Continuous)	Supply Power
AC Level 1	<u>120V AC, 1-Phase</u>	12A 16A	120VAC/20A (12-16A continuous)

¹⁴ See <https://vancouver.ca/streets-transportation/electric-vehicles.aspx>

¹⁵ See <https://www.vancourier.com/news/city-council-boosts-electric-vehicle-infrastructure-1.23202750>

	120V AC, 1-Phase		
AC Level 2	208 to 240V AC, 1-Phase	≤ 80A	208/240VAC/20-100A (16-80A continuous)

Blue Planet Foundation is open to working with the Council on identifying ways to make this EV-ready policy more acceptable to all stakeholders. Potential approaches to decreasing the potential burden of this proposed EV-ready policy (as amended) include:

1. **Phase-in period.** Increase the required percentage of stalls in phases (i.e. 25% of new stalls starting January 1, 2020; 50% starting January 1, 2021; 75% starting January 1, 2022; 100% starting January 1, 2023).
2. **Limit requirement.** For multi-family buildings, visitor parking could be excluded (Vancouver does not require visitor parking to be EV-ready).
3. **Allow the use of EV Energy Management Systems (EV EMS).** Providing the capability for every parking stall to charge an EV at Level 2 may lead to unnecessary expense in developing the building's electrical capacity (transformer, circuit capacity, etc.). In reality, all cars charging at once is an unlikely scenario, but engineers would need to design for that extreme possibility. In order to minimize the impact on builders and the utility grid, Vancouver's requirements allow the use of an EV EMS. Because most personal vehicles are parked for 8 to 10 hours per day at home, an EV EMS allows multiple vehicles to share a circuit. This significantly reduces construction costs and utility costs. In Vancouver's law, an EV EMS must ensure that every EV charging outlet receive at least 12kWh over an 8-hour period. This means that, even if a vehicle is plugged into every single outlet at once, all EVs will receive enough energy for the next day (about 50 miles with today's EV technology, or about twice the average daily distance driven on O'ahu).

Blue Planet Foundation would be happy to provide draft language to the Committee accomplish this and ensure that we have a smart EV-ready policy for new construction on O'ahu that maximizes the benefits of clean transportation and smart buildings for all.

Conclusion

The proposed Honolulu building energy code amendments in Bill 25 are sensible, cost-effective, and flexible. They are a meaningful response to our climate crisis and the need to decrease the cost of living for O'ahu residents. Blue Planet Foundation strongly supports Bill 25's adoption with our proposed amendment to increase the EV-ready provision to handle Level 2 charging in all new parking stalls. We are happy to answer any questions about this proposed bill or our testimony. Mahalo for this opportunity to provide testimony.



August 20, 2019

The Honorable Ron Menor, Chair
The Honorable Tommy Waters, Vice Chair
Members of the Committee on Zoning
Planning and Housing
City Council, City and County of Honolulu
Honolulu, Hawaii 96813-3077

RE: **Bill 25 (2019) – RELATING TO THE ENERGY CODE**
Hearing date: August 22, 2019 at 9:00 am

Aloha Chair Menor and Members of the Committee on Zoning, Planning and Housing,

Mahalo for the opportunity to submit testimony on behalf of NAIOP Hawaii in OPPOSITION to Bill 25. NAIOP Hawaii is the local chapter of the nation's leading organization for office, industrial, retail, residential and mixed-use real estate. NAIOP Hawaii has over 200 members in the State including local developers, owners, investors, asset managers, lenders and other professionals. NAIOP Hawaii is generally supportive of the City & County's efforts to promote sustainability. We are, however, concerned with the tremendous burden an additional mandate places on the cost of building homes in Hawaii, especially affordable housing.

Bill 25 seeks to adopt the Energy Code with certain amendments. Among those amendments there is a mandate that up to 25% of parking stalls be "electric vehicle charger ready." Hawaii's residents and businesses are already among the most heavily taxed in the entire country. The real estate development and construction industries are two of the biggest drivers of the entire State economy. These additional costs may seem minor, however, there are already significant development mandates which increase the cost of building residential units, which has significantly exacerbated the lack of affordable housing in Hawaii.

In addition, the bill places tremendous administrative burdens on developers and associations. The electric vehicle charger mandate may be feasible for developments with a parking structure, but for paved parking next in a multi-family development, where parking stalls are assigned by proximity rather than demand for infrastructure, sale of units may be driven by the parking stalls rather than the units themselves. In addition, once the parking stall is assigned, it is almost impossible to reassign parking stalls to different units.

Ron Menor, Chair
Members of the Committee on Zoning,
Planning and Housing
August 20, 2019
Page 2

A better alternative to the mandate would be to incentivize installation of electric vehicle infrastructure or find alternative venues such as at the work place. Where building owners and developers see a demand or other benefit that outweighs the cost, or makes economic sense, the owners will move forward to meet the need imposing unwarranted costs.

In order to keep the cost of housing from spiraling out of control, the City should resist the urge to place additional costs such as the 25% mandate for electric vehicle infrastructure. For these reasons, we urge you to amend Bill 25 to eliminate or reduce the mandate.

Mahalo for your consideration,

Scott Settle, Director
NAIOP Hawaii



Young Democrats of Hawaii
Democratic Party of Hawaii

**Testimony presented before Honolulu City Council
Zoning, Planning and Housing Committee
Thursday, August 22, 2019
9:00 a.m.**

Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

In early 2019 the Young Democrats of Hawaii (YDHI) conducted a member survey to identify and prioritize important issues facing young people today. Taking action on climate change was identified as one of the top three issues. YDHI members recognize that the impacts of climate change are already being felt throughout the world and in the State of Hawaii, and that actions must be taken immediately to ensure a viable future for all of Hawaii residents.

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Executive Committee
Young Democrats of Hawaii

August 19, 2019

The Honorable Ron Menor, Chair, and Members
Committee on Zoning, Planning and Housing
Honolulu City Council
530 South King Street, Room 202
Honolulu, Hawai'i 96813



SUBJECT: Testimony Supporting Bill 25 (2019)

Dear Chair Menor and Committee Members:

On behalf of the more than 2,000 residents of the City of Honolulu who are members of the Natural Resources Defense Council (NRDC), as well as the 2.4 million members and online activists we represent, I am writing to urge you to support Bill 25 (2019), which updates Honolulu's building code to match the Hawai'i State Energy Code and 2015 International Energy Conservation Code (IECC), with some important local amendments. The measures included in these codes will reduce emissions from homes and promote EV use, lower long-term costs for residents, build more efficient and healthy homes, and help the City meet its ambitious goals to solve the climate crisis.

Energy Code Updates are a Commonsense Way to Meet Honolulu's Climate Change Goals

Cities and counties across the country are on the front lines of both the impacts and solutions to the climate crisis. Building codes are a commonsense and powerful tool cities can use to accelerate the transition to a clean energy economy and ensure we collectively meet critical emissions reductions goals set forth in the Paris climate agreement and adopted by Hawai'i and Honolulu.

Honolulu residents are already feeling many of the effects of climate change, from more frequent hurricanes and rising seas to record high temperatures and rain bombs. Adoption of Bill 25 will help lead the way toward a more stable climate and a more resilient city.

Among the many positive benefits in the City and County of Honolulu's ("the City") proposed code update, two primary provisions will help the City make significant progress towards its ambitious carbon pollution reduction goals:

- (1) Requiring homes be electric vehicle (EV)-capable for Level 1 charging, and requiring 25% of multi-unit and commercial parking stalls to be EV-ready for Level 1 and 2 charging respectively.
- (2) Requiring solar hot water heating for newly constructed single-family homes, with certain exemptions in cases that are not economically viable.

These are proven and cost-effective measures. The following summarizes our support for these two key measures, including the reasons for our strong endorsement of these code updates.

Energy Code Updates Save Residents Energy and Money

Ongoing code updates help residents save energy and associated costs and emissions. A six-year old home constructed to the 2015 International Energy Conservation Code would use approximately 25% less energy than a house built under the current (2006) code.

Solar Hot Water is a No-Brainer for the Aloha State

Solar hot water systems are both environmentally and economically beneficial, particularly in Hawai'i where solar energy potential is abundant and electricity and natural gas prices are among the highest in the U.S.ⁱ Ensuring greater adoption of solar for all uses helps to reduce O'ahu's high use of imported oil, which has historically resulted in Hawaii being the state with the highest U.S. retail power prices--and build energy resilience and self-sufficiency. Solar hot water heating will also be a critical element to meet the City's commitment of 100% renewable energy by 2045 and help reduce the 9% of O'ahu's carbon emissions that come from residential energy use.ⁱⁱ

Solar hot water heating systems save consumers money. They have a faster payback period than conventional natural gas water heating because of the lower ongoing utility costs for consumers, despite the higher up-front costs of installing solar hot water heating. Requiring these updates in new homes will save O'ahu consumers thousands of dollars over the lifetime of a solar hot water system and help ensure that future renters and/or owners are not locked into a water heater option that costs much more over time.

Based on modeling completed by The Greenlink Group, closing the solar hot water loophole in Honolulu's Building Code would result in ***\$1 billion in environmental and cost savings for Oahu's economy at large.***

EV-Readiness Accelerates Clean Transportation and Lowers Charging Costs

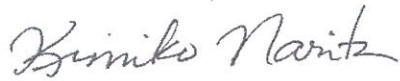
EV-ready building codes are one of the most effective and low-cost methods for cities to promote electric vehicle use. Retrofitting O'ahu's parking spaces with charging stations to accommodate the EV future would be far more costly than requiring readiness up front. Multiple studies nationally have found that the avoided cost associated with requiring EV-ready in new construction ranges from \$2,000 to \$5,000 per parking space.ⁱⁱⁱ

EV-readiness in new construction is an essential ingredient to support the City's commitment to transform all ground transportation to renewable fuels by 2045. On-road transportation accounts for 21% of O'ahu's polluting carbon emissions.^{iv} EVs are expected to reach cost parity with gas-powered cars in the early 2020s—and today, used EVs are very affordable. Already, Honolulu has 8th highest EV market share in the nation, and Hawai'i has the 2nd highest EV adoption rate per capita in the country.^v Cities must get their infrastructure ready to meet that demand.

To protect and promote the health, safety, resiliency, and economic prosperity of Honolulu and its residents, we urge you to support Bill 25(2019).

Thank you for the opportunity to submit these comments.

Sincerely,



Kimi Narita
Director of Buildings and Energy, American Cities Climate Challenge
NRDC

ⁱ https://www.eia.gov/dnav/ng/ng_pri_sum_a_EPG0_PRS_DMcf_m.htm

ⁱⁱ [https://www.honolulu.gov/rep/site/ccsr/City and County of Honolulu Annual Sustainability Report 2019.pdf](https://www.honolulu.gov/rep/site/ccsr/City_and_County_of_Honolulu_Annual_Sustainability_Report_2019.pdf)

ⁱⁱⁱ <https://www.documents.dgs.ca.gov/bsc/2015TriCycle/CAC/Green/Exhibit-B-CARB-Cost-Analysis-and-Technical-Report.pdf>; <http://evchargingpros.com/wp-content/uploads/2017/04/City-of-SF-PEV-Infrastructure-Cost-Effectiveness-Report-2016.pdf>; <https://energy-solution.com/wp-content/uploads/2016/09/PEV-Infrastructure-Cost-Effectiveness-Summary-Report-2016-07-20b.pdf>

^{iv} [https://www.honolulu.gov/rep/site/ccsr/City and County of Honolulu Annual Sustainability Report 2019.pdf](https://www.honolulu.gov/rep/site/ccsr/City_and_County_of_Honolulu_Annual_Sustainability_Report_2019.pdf)

^v <https://www.bizjournals.com/pacific/news/2018/11/16/honolulu-among-top-10-electric-vehicle-markets-in.html>



August 21, 2019

Honolulu City Council
Zoning, Planning and Housing Committee
August 22, 2019, 9:00 AM hearing

RE: Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"

Chair Menor, Vice Chair Waters, and members of the Committee,

[Trees for Honolulu's Future](http://www.treesforhonolulu.org) (TFHF) is a non-profit organization with a vision for an appropriately tree-shaded island that preserves and enhances our quality of life, especially in the face of climate change.

Trees are cool and so is updating and modernizing the City's building energy code. We are in strong support of Bill 25 as it will help further our organization's vision by addressing climate change and making Honolulu a better place to live.

The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. The fix to the water heater loophole is important. Additionally, we would also urge the Committee to strengthen the zero emission vehicle standards as recommended by the Blue Planet Foundation. Just as trees are an investment now for the future, making new construction be "EV-ready" is cost effective versus trying to retrofit structures later.

Please advance Bill 25 with this EV-ready amendment.

Thank you for the opportunity to submit this testimony.

Daniel Dinell
President

BOARD OF DIRECTORS

Roxanne Adams, ISA Certified
Arborist, Building & Grounds,
University of Hawaii

Daniel Dinell, President, Trees
for Honolulu's Future

Tom Dinell, FAICP, Emeritus
Professor, Urban & Regional
Planning, University of Hawaii

Kevin Eckert, Board Certified
Master Arborist, Arbor Global

Tom Fee, AICP, LEED AP ND,
HHF Planners

Matthew Gonser, MURP, AICP,
Office of Climate Change,
Sustainability & Resiliency,
City & County of Honolulu

John Knox, Ph.D.,
John M. Knox and Associates

Terri Koike, ISA Certified
Arborist, Urban Forestry
Division, City & County of
Honolulu

Wai Lee,
Smart Trees Pacific

Robyn Loudermilk, MURP, AICP,
State Planner

Lisa Marten, MPP, DrPH,
Healthy Climate Communities

Daniel Simonich,
ProsPac Holdings Group, LLC

Winston Welch,
The Outdoor Circle



Testimony in support of Bill 25

COMMITTEE ON ZONING, PLANNING AND HOUSING

Hearing Wednesday, August 22, 2019

Aloha Chair Menor, Vice-Chair Waters and Committee Members,

I am writing in strong support of Bill 25.

These concrete measures will help us achieve the important goals our City and our State have committed to in order to slow and eventually reverse Climate Change.

The Bill has well thought out and practical measures. Amend our outdated building energy code, close the loophole that has allowed developers to install gas rather than solar water heaters, and making our infrastructure “EV ready.”

However, I would urge one amendment: Please upgrade the requirement for EV chargers to be AC Level 2 ready. The investments should be appropriate for the actual future needs of residents who will be charging their vehicles.

Mahalo,

Dr. Lisa Marten

Executive Director
Healthy Climate Communities
healthyclimate@hawaii.rr.com

Testimony of
Pacific Resource Partnership

Committee on Zoning, Planning and Housing

The Honorable Ron Menor, Chair

The Honorable Tommy Waters, Vice Chair

Bill 25 (2019) – Relating to the State Energy Conservation Code

Thursday, August 22, 2019

Dear Chair Menor, Vice Chair Waters and Members of the Committee:

Pacific Resource Partnership (PRP) appreciates the opportunity to present testimony to this Committee and voice its **strong concerns** regarding Bill 25 (2019), as drafted, and its disparate impact on the cost of housing, including affordable housing and/or affordable rentals, on Oahu. PRP remains steadfast in its support of reasoned clean energy policies balanced against cost of living factors that directly impact the day-to-day lives of Hawaii residents. The key is striking a balance informed by data.

In 2017, the Aloha United Way (AUW) commissioned ALICE: A STUDY OF FINANCIAL HARDSHIP IN HAWAII. ALICE stands for “Asset Limited, Income Constrained, Employed” and describes a community across Hawaii “struggling to make ends meet.” For example, while ALICE households earn more than the Federal Poverty Level (FPL), they earn less than the basic cost of living for the state and “cannot afford basic necessities to remain stable and self-sufficient.” Combined with those households living beneath the FPL, an astonishing 48% of the total Hawaii population struggles to make ends meet with a budget that does not allow for savings without sacrificing other necessities, such as childcare, food, healthcare, and transportation. In Honolulu County alone, ALICE households represent 46% of the total households. Point-in-time data gathered by AUW during its data collection stage for the ALICE report revealed a higher percentage of ALICE and FPL households for those under 25 and between 25 to 44 years of age versus more senior households, with housing identified as the single largest monthly cost factor, meaning our younger demographics are those most income-challenged to balance higher housing costs with other necessities associated with the high cost of living in Hawaii.

In the spring of 2019, PRP published its Hawaii Perspectives Report, independently validating that Hawaii households are struggling and overwhelmed with our state’s high cost of living. Respondents (registered voters), principally in Honolulu County, identified housing costs as a major concern with 71% singling out the availability of housing their families could afford as an issue that has worsened over time.

The data available to this Committee and the Council speaks volumes regarding hard economic realities confronting those choosing to live and raise their families on Oahu. PRP strongly encourages the City Council to move slowly and deliberately in reviewing the abundant data which counsels for balancing the cost of living, including the cost of housing and housing inventory (ownership and rental), against energy policies that can and should be implemented over Hawaii’s 100% clean energy horizon of 2045.





Imanaka Asato
A LIMITED LIABILITY LAW COMPANY

August 21, 2019

The Honorable Ron Menor, Chair
The Honorable Tommy Waters, Vice Chair
Members of the Committee on Zoning
Planning and Housing
City Council, City and County of Honolulu
Honolulu, Hawaii 96813-3077

RE: **Bill 25 (2019) – RELATING TO THE ENERGY CODE**
Hearing date: August 22, 2019 at 9:00 am

Aloha Chair Menor and Members of the Committee on Zoning, Planning and Housing,

Mahalo for the opportunity to submit testimony on behalf of D.R. Horton in OPPOSITION to Bill 25. D.R. Horton is one of Hawaii's largest home builders, and has been working on projects throughout Honolulu for decades. D.R. Horton has been a leader in energy efficient and sustainable homes in Hawaii and supports the City's efforts to promote sustainability. In fact, D.R. Horton has committed to an overall sustainability plan for its Ho'opili project. Under the Ho'opili plan, D.R. Horton has included numerous sustainable features in the homes including:

- Urban and edible gardens/trees in every single family home,
- Edible fruit trees in common area parks and green spaces,
- Participation in Hawaiian Electric Company's Grid Interactive Water Heater program
- Photovoltaic infrastructure (PV Ready),
- Electric vehicle charging infrastructure (EV Ready),
- Dual glazed windows,
- LED lighting,
- Tankless instant gas water heaters with a suite of energy saving gas appliances,
- Water conserving plumbing fixtures,

- 20 SEER+ high efficiency air conditioners
- Ceiling fan options,
- Solatube options,
- Solar attic fan options ,
- Participation in the City's refuse recycling program and
- Participation in the City's R1 recycled water system infrastructure

Despite D.R. Horton's commitment to sustainability, we are concerned with the approach Bill 25 takes with the amendments to the State Energy Code. Hawaii is already one of the most expensive states in the nation to build homes. In addition to the high cost of land and materials, entitlements and other development fees, mandates add substantial costs to the price of a home. On the other hand, Hawaii is in dire need of affordable housing. The increased cost of development, and in turn, the cost of homes, places homeownership out of reach for an increasingly high percentage of local residents. Bill 25 would add yet another increase to the cost of building homes with little current demand for EV charger stalls.

Specifically, the requirements that new residential multi-unit buildings with more than eight parking stalls be electric vehicle (EV) charger ready for at least 25% of the stalls and that solar water heaters be used for 90% of unit's water heating service needs would add substantial costs to the price of a home. Based on recent estimates, the EV charger infrastructure would add approximately \$1,700 to each unit if spread across all units or \$7,000 per unit if limited to those units with the EV infrastructure parking stall assigned – not including the EV charger itself nor the additional cost to upgrade system transformers as required.

Similarly, the solar water heater system would add about \$7500 per unit for systems that historically have been shown to have a usable life of as little as 5 years without annual maintenance. These are substantial costs to the price of a home without any promise of increasing EV use or having greater renewable energy benefits than what D.R. Horton has already committed to.

There are also administrative concerns with the EV infrastructure mandate. For example, assigned parking stalls for multi-family units are not easily reassigned. As a condominium project, D.R. Horton assigns a fixed number of parking stalls as limited common elements appurtenant to the project via an exhibit to the recorded CPR declaration. Once assigned and recorded, it is very difficult to reassign the parking stalls. For multi-family units with a paved parking lot, proximity to the unit is much more important than EV infrastructure. If only certain units are assigned an uncovered EV ready stall, than the buyer and any subsequent buyer is

The Honorable Ron Menor, Chair
The Honorable Tommy Waters, Vice Chair
August 21, 2019
Page 3

unable to request a different stall for more likely demand factors such as proximity to the unit. Accordingly, the parking stall assignment may drive the sales, or lead to reduced demand, of the units and will likely lead to limited resale opportunities for the buyer. It could also increase administrative and legal costs as recorded CPR documents may need to be amended to accommodate the impracticality of pre-assigned EV ready parking stalls.

D.R. Horton believes some additional research and/or incentives should be included with the EV infrastructure and solar water heater mandates in Bill 25. We would appreciate the opportunity to work with the council and other stakeholders to determine some viable options. We have also prepared draft amendments to Bill 25 for your consideration.

In summary, affordable housing is severely needed throughout Honolulu and additional mandates or fees drive these costs out of the reach of local residents. The City should review in totality the numerous proposed policies and code amendments that each increase cost to the price of housing and that combined, aggregate into an obstacle to build more affordable housing. We strongly urge you to make the reasonable amendments suggested, or in the alternative consider establishing a working group to address these issues.

Mahalo for your consideration,

Michael L. Iosua



Council of the City and County of Honolulu
City Hall, 530 South King Street
Honolulu, Hawai'i 96813

Committee on Zoning, Planning and Housing
Testimony in Support of Bill 25 (2019) - Relating to the Adoption of the State Energy
Conservation Code
August 22, 2019, 9:00 AM Hearing

Dear Chair Menor, Vice Chair Waters and Members of the Committee on Zoning, Planning and Housing:

Thank you for the opportunity to submit comments on Bill 25, Relating to the Adoption of the State Energy Conservation Code. The Hawai'i Energy program would like to testify in **strong support** for this item.

Hawai'i Energy works on behalf of the Hawai'i Public Utilities Commission (PUC) to empower island families and businesses to make smart energy choices to reduce energy consumption, save money, and pursue a clean energy future. We believe the new energy codes are critical in this effort and part of a global movement to make progress on climate change mitigation through codes and standards.

Energy efficiency remains the cheapest, cleanest energy resource today. The amended IECC 2015 will provide healthy and safe indoor environments while providing substantial bill savings for occupants over the life of the building, promote greater energy resilience and help Hawai'i reach our statewide commitment to reach 100% clean energy by 2045. In general, any building code is designed and reviewed for efficiency with cost- effectiveness in mind. Moreover, the Hawai'i amendments were carefully developed with the input of many agencies, organizations and the design and construction industry to minimize unintended consequences such as increased construction, materials and labor costs – while assuring occupants the benefits of high performance buildings that consume less electricity.

Electric vehicle charging infrastructure requirements

According to global research consulting firms McKinsey & Company and the Bloomberg New Economy Forum, electric vehicles are expected to reach cost parity with internal combustion engine (ICE) vehicles in the early 2020s. Consumer adoption of EVs will be swift and Hawai'i must be poised to meet this demand. Policymakers have an important role in supporting market transformation in this area.

Hawai'i Energy therefore supports the amendments requiring basic electric vehicle infrastructure, recognizing the sizable cost advantage, **between four to eight times less expensive**, of having EV-ready capacity at the time of construction. However, Hawai'i Energy also sees missed opportunity by not requiring Level 2 charging infrastructure. As EV adoption increases, Bill 1585 which was signed by the governor this year gives rebates for workplace and multi-unit **Level 2 EV chargers**. **Level 2 charging is emphasized because it significantly increases the ability of our grid to absorb solar generation throughout the day** as opposed to Level 1 charging, and additional offers convenience in faster charging times. This will ease the path toward electric vehicle adoption by reducing the cost to install post-construction and help realize the associated electrical grid and clean energy benefits. With the average residential building having a fifty year lifespan, the **buildings being built today will have measurable impact on future generations**.

Keeping people's utility bills low so they can stay in their homes

If you incorporate the incremental cost of a solar water heater into a 30 year mortgage, a resident will still have \$77 extra in their pocket after paying the increase in monthly payment.

Hawai'i Energy did a cost comparison of the annualized cost of ownership for a solar water heater vs an instantaneous gas heater in new residential construction. Assuming an installed cost of \$1,000 for an instantaneous gas water heater and \$7,000 for a solar water heater, the price difference is approximately \$6,000. By making full use of federal and state tax incentives, the incremental cost shrinks to \$3,900. At current electric and gas rates, Hawai'i Energy estimates the annual fuel cost for an instantaneous gas heater to be around \$400 for a four person household. Solar water heating on the other hand, is designed to only use its backup element 10% of the time, giving an annual cost to operate around \$100 for the same need. **Instantaneous gas heaters hence cost four times more to operate per year than a solar water heater**, costs which occur from day one of occupancy. Furthermore, our analysis quantifies the significant carbon emissions avoided by using a renewable source, solar, versus natural gas, for water heating. Even if a household had to finance the incremental first cost difference on their mortgage at 4% per year, the net savings would amount to \$77 per year. They'd also **reduce CO2 emissions by 800 pounds a year or nearly 27,749 pounds (12 tons) of carbon over a 30 year mortgage**.

Homeowners don't have a choice

Homeowners who purchase a new home in a master-planned community that was granted a variance and installed with an instantaneous gas heater by default are burdened with these higher operational costs. They are also denied the ability to utilize a clean, renewable form of energy for their water heating needs. Although instantaneous gas heaters play a role as an alternative in the marketplace, many home buyers in communities around O'ahu are not the ones making the choice.

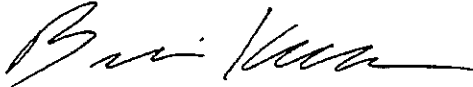
Substantial Benefits to Taxpayers from the Fully Implemented Code

The Blue Planet Foundation, based on data provided by the Hawai'i State Energy Office, estimates that over the next 20 years, Oahu will save over **\$971,000,000** through the implementation of the 2015 code and the amendments in the subject Bill. This is money that can stay in the local economy rather than being used for fossil energy or imported renewable infrastructure.

The sensible energy code amendments in the proposed Building Energy Conservation Code of the City and County of Honolulu, represent a critical opportunity for Oahu to make a leap forward in the transition to 100% clean energy and will provide lasting economic benefits to residents and businesses who are already burdened with high costs. We encourage the Committee to pass the adoption of these provisions.

Thank you for the opportunity to testify. If you have any questions on Hawai'i Energy's programs or our work toward the adoption of stronger energy codes, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Kealoha", with a stylized, flowing script.

Brian Kealoha
Executive Director

Speaker Registration/Testimony

Name Mark Hixon
Phone 808-956-6427
Email hixonm@hawaii.edu
Meeting Date 08-22-2019
Council/PH
Committee Zoning
Agenda Item Bill 25 (2019)
Your position
on the matter Support
Representing Self
Organization
Do you wish
to speak at the No
hearing?

In strong support of Bill 25

Aloha ZPH Chair Menor and Committee Members,

I strongly support Bill 25 for multiple reasons, detailed below. I ask you to reject self-serving, deceptive arguments against this bill, such as, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

Regarding choices, with or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers. Once they choose a type of water heater, people who buy the homes are stuck with the developer's choice, usually meaning eternal gas bills.

If given a choice and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far less expensive in the long term. To give homeowners that benefit, there must be an ordinance to compel developers to make the right choice.

Importantly, natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one should have the right to "choose" options that negatively affect everyone. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left side of the road. The same goes for people who prefer cooking with natural gas.

Regarding affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. Electric vehicle (EV) charging stations add a slight cost, but that's becoming a part

of 21st century life.

Regarding the details of Bill 25, please raise the EV-ready parking stall amount in item 17 from 25% to at least 50%. Vancouver's requirement is 100%. 25% will become inadequate in the next few years as Hawai'i progresses toward energy independence. Let's plan ahead.

I also request that you change all the bill's language about Level 1 charging to be Level 2 charging. Level 2 is fast becoming the standard nationwide because it is several times faster, making EVs far more convenient and practical for homeowners and renters. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawai'i must eventually do to meet our energy independence goals.

Items 17, 28 and 31 in Bill 25 -- the solar water heating and EV-readiness sections -- will accomplish three important outcomes:

Written
Testimony

1. Lower the cost of living for long-term Hawai'i residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawai'i is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill, ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free. EVs will soon replace gas cars. Hawai'i residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing charging stations is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or so.
2. Help to fight climate disruption. Those who want a choice of gas water heating should consider that the methane they would burn affects us all by contributing to global warming. Their kokua to shift toward renewable energy is essential. Hawai'i needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.
3. Show energy leadership. We're all very proud to be the first state to commit to 100% clean energy, yet what progress have we made? The federal government is currently in love with coal. The Hawai'i legislature did very close to nothing this year. That leaves you. Are we going to simply wait for a severe hurricane to wipe out Waikiki? Are we going to simply wait for Kam Highway to fall into the ocean completely? The latest science shows that shifting to clean energy by 2045 is too little, too late. It's past time to move that goal up, for our children and grandchildren if not for ourselves.

In short, this bill, with stronger amendments, deserves support from anyone concerned about climate disruption or saving consumers money. Please take this chance to set a example for making Hawai'i truly sustainable and cost-effective society.

[1] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

Mahalo for the opportunity to testify.
Dr. Mark Hixon

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

To: The Zoning, Planning and Housing Committee

From: Karen Margulies Kimbrell, RN

Date: August 18, 2019

In strong support of BILL 25

Dear ZPH Chair Menor and Committee Members,

I own my home and replaced the electric water heater with solar many years ago. 12 years ago I added solar panels to the house. I've been enjoying the savings for many years, and have felt a personal satisfaction in knowing I'm assisting with the climate change crisis.

I drive a Prius hybrid & have installed Level 1 charging in my carport. When my Prius finally gives out, I plan to buy a fully electric car and install Level 2 charging. Level 2 charging is the gold-standard now, and should be installed in 100% of all new homes. Most families charge their car at home.

Hawaii also needs to greatly increase the number of EV ready parking stalls with Level 2 charging. Item 17 should increase this amount from 25% to at least 50% of stalls. We need to make things as easy for people as possible to consider purchasing electric vehicles.

I also support the requirement in this bill for 90% renewable energy to heat water. Hawaii has sunshine and wind. It makes no sense, economically or ecologically, to use gas or electricity for this. Liquefied Natural Gas is actually methane, a greenhouse gas 84 times as harmful as carbon dioxide. Gas emissions affect **everyone** ; **no one should have the right to choose for the rest of us.**

Thank you for doing the right thing for Hawaii and the planet!

Speaker Registration/Testimony

Name Nanea Lo
 Phone 18084543504
 Email naneaclo@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item In strong support of Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear ZPH Chair Menor and Committee Members,

I strongly support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents.

Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

Written
Testimony

2. Help to fight our climate crisis.

Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential. Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership!

We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about saving consumers money.

Here's your chance to set an example. Take it!

[1] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

Thank you for the opportunity to testify.

Nanea Lo

Testimony

Attachment

Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Dyson
Phone	8084627570
Email	cheedyson@gmail.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Jaimey Hamilton Faris
 Phone 8082774041
 Email jhamiltonfaris@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 5
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: Jaimey Hamilton Faris
 Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I strongly support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents.

Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis.

Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential. Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership!

We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about

Written
Testimony

saving consumers money.

Here's your chance to set an example. Take it!

[1] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

Thank you for the opportunity to testify.

Jaimey Hamilton Faris

Testimony

Attachment

Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Eric Micha'el Leventhal
 Phone (808) 442-2353
 Email 6421c61a@opayq.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: Eric Micha'el Leventhal
 Date: Thursday, August 22, 2019

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Dear ZPH Chair Menor and Committee Members,

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Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

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Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

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Written
Testimony

saving consumers money.

Here's your chance to set an example. Take it!

[1] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

Thank you for the opportunity to testify.

~ Eric Michael Leventhal

Testimony

Attachment

Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name David Albares
 Phone 3347968762
 Email dave.albares@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 5
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

I strongly support Bill 25 because its provisions will assist long-term residents and it will send out a signal to other islands and states that action is required to save the unique environment of the Hawaiian Islands.

Of course there are up front costs to improving the EV infrastructure, which ought to be level 2 charging systems, as well as costs to requiring renewable water heaters. However, long-term residents are not planning for the next 3 years they are planning for the next 30 years and it's overwhelmingly clear that in a short time these investments will make home ownership and EV ownership more affordable.

Written
Testimony

Bill 25 also shows that we are serious about combatting climate change. What do we have without our reefs? Without our forests? We are uniquely vulnerable to climate change. Of course climate change is a big problem and Bill 25 will not solve it but why should we let that get in the way of fighting back?

Please support Bill 25 as a needed investment that will surely pay off in the future of our residents and the future of our islands.

Testimony
 Attachment
 Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Glenn Metzler
 Phone 8082861522
 Email metzeco@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: Glenn Metzler
 Meeting Date: Thursday, August 22, 2019

Dear ZPH Chair Menor and Committee Members,

Written
 Testimony

I am in strong support of Bill 25. We can no longer wait to take decisive action to begin reducing our greenhouse gas emissions. Although some argue that homeowners should be given a choice and that allowing gas water heaters saves a homebuyer money, these are disingenuous arguments. Most home buyers in Hawaii don't have a choice of water heater because the decision has already been made. Saving money is relative – solar water heaters will cost more initially but in a few years will be paid and further costs minimal. And no greenhouse gases!

I also ask that you change all the bill's language about Level 1 charging to be Level 2 charging. Level 2 is becoming the standard nationwide because it is several times faster, making EVs more convenient and practical for homeowners and renters.

Thank you for your consideration.
 Glenn Metzler

Testimony
 Attachment
 Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Jonathan Boyne
 Phone 8089514934
 Email boyne@hawaii.edu
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25 2019
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear ZPH Chair Menor and Committee Members,

I strongly support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

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Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

Written
Testimony

2. Help to fight our climate crisis.

Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

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Thank you for the opportunity to testify.

Testimony

Attachment

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and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Carolyn Bell-Tuttle
 Phone 8087784226
 Email carolynn.bell@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 5
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: YOUR NAME
 Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

Written
 Testimony

I strongly support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

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Carolynn Bell-Tuttle

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Andrew Pong
Phone	8085617664
Email	ap22558@gmail.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Oppose
Representing Organization	Self
Do you wish to speak at the hearing?	No
Written Testimony	I am adamantly against Bill 25 (2019). Not allowing gas as a clean energy source does not make sense and will not allow the people of Hawaii to make a choice is preposterous. Natural gas and propane are clean, affordable, and more efficient than other options. Please do not pass Bill 25 (2019). Thank you.
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Caroline Kunitake
Phone	808 782 2150
Email	caroline.m.kunitake@gmail.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

To: The Committee on Zoning, Planning and Housing
From: Laura Alskog
Date: Sunday August 18, 2019

In strong support of Bill 25

Dear ZPH Chair and Committee Members,

I recently traded in my beloved Toyota Tacoma for an all-electric Nissan Leaf with a 30kW battery because climate change is happening NOW, and we can no longer wait to act on it. The guilt and anxiety of continuing to drive a gas powered car while the earth is literally burning in so many places became too much for me. Before I bought the Leaf, I noticed electric vehicle (EV) charging stations here and there around the island so figured the transition would be a smooth and easy one. I couldn't have been more wrong. I live on the eastside, and luckily for me, I can charge my car at home, but I drive the H-3 to work at Pearl Harbor every day and the drive over the Ko'olaus uses about a quarter of the car's battery power each way. I didn't realize this would be the case, or that I would come to be dependent on EV charging stations if I wanted to do other normal driving, like to surf in town or to visit my or my fiancé's families in Ewa Beach or Kapolei. We were in Kapolei today and the new development Kapolei Commons seems to support EV drivers and has about ten charging stations in total, but it is still nowhere near enough stations to support the needs of the electric vehicles we currently have on the road. Today, on a Sunday, every single station was full, with about eight other EVs like myself circling the EV charging stalls, waiting for a Level 2 charging station to open up. The stress of this was intense, since I still needed to pick up groceries for my mom, grab lunch, get to work, and make it back over the H-3 and with the Leaf at 45% battery remaining, that is cutting it way too close.

We need so many more charging stations than we have currently available, and not just Level 2 stations (where EV drivers park and post up somewhere else while their cars are plugged into the chargers for hours), we have a desperate need for Level 3 charging stations, which take about 20 minutes for a pretty significant charge. EVs are in and out of those stations fast and they're super efficient. My fiancé and I have had the same experience in so many other parts of the island, Ala Moana Center being particularly bad. We don't have the infrastructure in place to support the tiny percentage of EVs on the road now, how bad will it be next year when many more car companies come out with all-electric vehicles and EVs go more and more mainstream? For the people who can't afford the long-range Teslas, this is a super stressful thing to live with. Hawaii needs to support its EV drivers, who are doing their part to combat global warming and meet our emission reduction goals we have set in place. We need to make it easier to drive and own an electric car, not harder than it is to drive a conventional car. Oahu easily needs 2 to 3 times the charging stations that are currently available *now*, not in a year. I want owning and driving an electric car to be positive and fun, not a stressful and unnecessary additional source of anxiety in peoples' lives. So many of our current charging stations are already in use or out of order/broken, some for months on end now, meaning you can't guarantee you'll be able to get a charge anywhere you go. Climate change and global warming is here, is happening now, and is the biggest threat Hawaii and humanity has ever faced. Please support our community with this tangible step in the transition to 100% renewable energy for Hawaii. EV drivers are doing their part, please support us and do yours. Thank you so much for your time!

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Dear ZPH Chair Menor and Committee Members,

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Thank you for the opportunity to testify.

Anne Zellinger

Speaker Registration/Testimony

Name Richard Louis
 Phone 8085512007
 Email rlouishi@gmail.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Oppose
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Written
 Testimony The basic life cycle analysis for solar is flawed and the true cost to a homeowner could add a minimum of \$5,000 (which is tremendous to a new homeowner) to the cost of the single family residence. I do not agree with the statute that requires a homeowner to have a limited choice of hot water heating systems. The 2010 statute is an incorrect impetus to Bill 25. If so, there is no stopping to create a statute to determine the type of vehicle one purchases.

Testimony
 Attachment
 Accept Terms
 and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	S. Hookano
Phone	(808) 597-8388
Email	shookano@kuiwalu.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	ITEM 5. BILL 25 (2019) – RELATING TO THE ADOPTION OF THE STATE ENERGY CONSERVATION CODE.
Your position on the matter	Oppose
Representing Organization	Self
Do you wish to speak at the hearing?	No
Written Testimony	PLEASE DO NOT MAKE MY CONTACT INFORMATION PUBLIC. We need to keep our alternative energy options open and plan for not just the short- term but long-term events. Why are you trying to create new laws that restrict homeowners from choosing their source of energy for what has been somewhat affordable and working for them?
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Dawn Lippert
 Phone (808) 237-5050
 Email dawn@elementalexcelerator.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 025
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear Chair Menor, Vice-Chair Waters, and Members of the Committee on Zoning, Planning, and Housing:

I am submitting testimony in strong support of Bill 25, which regulates the design and construction of residential and commercial buildings for the effective use of energy through the adoption of the State Energy Conservation Code (2017), subject to local amendments by the City and County of Honolulu. I am a resident of the Diamond Head neighborhood, Council District 4.

Written
Testimony

First, I applaud our City's leadership in this effort. Our existing building energy code is over thirteen years out of date. The proposed code revisions reflect the broad changes in technology, building materials, and best practices that account for Honolulu's unique island and building environment. For the next twenty years, our City can save nearly \$1 billion in energy costs with these updated codes. This factor is essential to consider with our State's high cost of living.

Secondly, with new housing development, this measure would ensure we equip new housing with either solar or high-efficiency water heaters that support our State's clean energy goals. It will end the loophole that has allowed recent housing projects to avoid putting in solar.

Finally, Bill 25 helps Honolulu make the transition to zero-emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready." This makes electric cars more accessible to residents, reduce the overall cost of our transition to clean transportation, and reaffirms our City's commitment to 100% renewable ground transportation by 2045.

Updating our building codes is crucial in reducing energy costs while increasing family health and comfort. For a more sustainable Honolulu, I urge you to pass Bill 25.

Mahalo for the opportunity to testify.

Sincerely,
Dawn Lippert

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

From: CLK Council Info
Sent: Tuesday, August 20, 2019 12:50 PM
Subject: Council/Public Hearing Speaker Registration/Testimony

Speaker Registration/Testimony

Name Virginia Hinshaw
Phone 808-373-9516
Email hinshaw.v@gmail.com
Meeting Date 08-20-2019
Council/PH Committee Council
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

As a citizen of Oahu and a board member of Blue Planet Foundation, I am writing in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be

installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Chase Pacupac
 Phone 8093471810
 Email Pacupac808@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 5
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: Chase Pacupac
 Date: Tuesday, August 20, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I strongly support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents.

Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis.

Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership!

We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about

Written
Testimony

saving consumers money.

Here's your chance to set an example. Take it!

[1] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

Thank you for the opportunity to testify.

Chase Pacupac

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

From: CLK Council Info
Sent: Tuesday, August 20, 2019 1:19 PM
Subject: Public Infrastructure, Technology and Sustainability Speaker Registration/testimony

Speaker Registration/Testimony

Name Asia Leong
Phone 8086392181
Email asialeong@icloud.com
Meeting Date 08-22-2019
Council/PH Committee PITS
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

Honolulu City Council
Zoning, Planning and Housing Committee
Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for

EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Testimony

Attachment

Accept Terms and
Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Elizabeth Kiefer
 Phone 8604907474
 Email EMKIEFER@GMAIL.COM
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

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construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Elizabeth Kiefer MD MPH
Honolulu HI 96821

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name	francis ako
Phone	3893080
Email	akocurtiss@gmail.com
Meeting Date	08-22-201y
Council/PH Committee	Zoning
Agenda Item	bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	Please support bill 25.
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Adriann Gin
 Phone 8085448960
 Email agin808@gmail.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

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new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Adriann Gin
Honolulu, HI 96821

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Lillian Raz
 Phone 8593339666
 Email lillianjtuttle@gmail.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof"

new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Lillian Raz of Honolulu, HI 96816

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Dana Barbata
 Phone 8083435474
 Email danabarbata@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear Chair Menor, Vice Chair Waters, and members of the Committee,

Written
Testimony

I write in support of Bill 25, "relating to the adoption of the state energy conservation code" because Bill 25 helps our climate and clean energy future in three ways:

1. It updates the existing building efficiency code—which is over thirteen years out of date—with new energy saving measures, such as better insulation, improved lighting, and smarter controls for new residential and commercial construction.
2. It ensures that all new homes will come equipped with either a solar water heater, a high-efficiency heat pump water heater, or a “smart” grid-interactive water heater (that will allow us to use more renewable energy on the power grid).
3. It requires that new commercial and multi-family development, above a certain size, be “electric vehicle-ready” (having the wiring, conduit, and electrical capacity for Level 2 charging stations to be installed later) in at least 25% of the parking stalls. Studies have shown that installing EV infrastructure at the time of construction can be 91% less expensive than post-construction retrofits.

These are significant, cost-effective changes that will help to dramatically reduce the greenhouse gas emissions from our new homes and buildings while helping to foster our transition to clean transportation.

Thank you for your consideration,
 Dana Barbata
 Honolulu, HI 96815

Testimony
 Attachment
 Accept Terms
 and Agreement

1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Jennifer Whitney Goodell
 Phone 925-864-8190
 Email whitneygoodell@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

Written Testimony In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

J. Whitney Goodell
Honolulu, HI 96816

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name	William Metzger
Phone	8089886220
Email	wjmetzger@hotmail.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	Yes
Written Testimony	I support the need to require all new housing be fitted with alternative energy ONLY. Gas should NOT be an option.
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

To: The Committee on Zoning, Planning and Housing

From: Beppie J. Shapiro

Date: Thursday, August 22, 2019

In strong support of **BILL 25**

Chair Menor and Members of the Zoning, Planning and Housing Committee:

I am delighted to have the opportunity to support Bill 25. If passed, this bill will clearly show that Honolulu County is serious about its commitment to address the fossil fuel emissions which threaten our island's physical environment.

Bill 25 includes several important actions toward this end and will save homeowners money after about 4 years at most (heating water with renewable energy); and will encourage the purchase or continued use of electric vehicles, a priority of the C&C.

My car is a 2003 Honda and one of these days I will have to replace it - I'm definitely going to buy an electric car. If we want (as we do) to move rapidly to eliminate gasoline and diesel cars, we must make charging stations available. By far the cheapest way to do this is while buildings and houses are under construction. The most "bang for the buck" will be with a requirement for 50% or 75% of parking stalls to have electric charging infrastructure: developers as well as buyers will save with multiple installations compared to one by one installations later.

There is one more thing you could do to improve Bill 25: require infrastructure for Level 2 electric vehicle charging stations rather than the MUCH slower Level 1 infrastructure. That will reassure people considering buying electric cars that they can charge them conveniently. The faster charging will have another very very important benefit: charging is more likely to happen while the sun is up, making efficient use of solar energy possible.

Thank you for considering this testimony.

Speaker Registration/Testimony

Name Amanda Ellis
 Phone 8084764504
 Email Ellisa@eastwestcenter.org
 Meeting Date 09-22-2019
 Council/PH Committee Zoning
 Agenda Item Building efficiency
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new

construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Testimony

Attachment

Accept Terms
and Agreement 1

IP: 192.168.200.67

Honolulu City Council
Zoning, Planning and Housing Committee
Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Hawaii is hugely dependent on imported fossil fuels. Climate change is our responsibility and long term investment "greening" Hawaii's homes is both essential and smart. Going green is good for the planet, good for our citizens, and good for our wallets! Bill 25 moves us toward building codes that are green and encourage homeowners, renters, and drivers to make "green" choices in their homes, use of hot water and the vehicles they drive. I support Bill 25 because it will save money, save the planet and our 'aina by reducing use of fossil fuels and utilizing the best of current technology.

I have equipped our home with solar water, PV, whole house fans, and a Level 2 EV charging station for my Nissan Leaf. I can witness that these investments have more than paid for themselves and give me the joy of making a difference in reducing my carbon foot print. Bill 25 will help builders, homeowners and motorists a leg up on energy efficiency and cleaner living.

I urge amendment of Bill 25 to include stronger provision for Level 2 charging stations. Zero emission vehicle drivers need encouragement, both to purchase EVs and to have confidence that they will have access to charging stations in their homes. Level two chargers are essential to reducing time between drives. Let's learn from Vancouver and join them as leaders in the transportation future.

Please advance Bill 25 with the EV-ready amendment.

Thank you for considering my testimony.

Daniel Benedict
67-207 Kahaone Loop, Unit A
Waialua HI 96791

20 August 2019

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying my support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Please require that commercial and residential buildings and all parking lots with greater than 50 parking spaces contain EV Level 2 charging capabilities. And add an enforceable penalty in the form of a fine for those non-EV vehicles that park in an EV charging stall/space.

I am addressing only EV-Charging requirements. You have heard the pro EV position already. I can't improve on that argument. I will simply ask: How will we reach our goals of no reliance on fossil fuel if we can't operate as conveniently and efficiently with charging our EV's as we can with gasoline refueling? Will you as members of our community look back on your current opportunity to insure our residential buildings are EV-Ready with Level 2 charging and wish you had done what was necessary?

The cost to retrofit old and even newer buildings/residential homes is far more expensive than proper planning and implementation during the construction process. Ask experts such as Blue Planet Foundation. They can tell you that Level 1 is simply inadequate and should not even be considered EV-Ready.

I have been an EV owner for 6+ years. I charge at home, but I have compassion for those that cannot charge at home. I have acquaintances that own EVs and cannot charge at home. They depend on finding a vacant charging space to charge. And they compete with others. There is simply not enough EV charging spaces in parking lots for people to charge today. How will it improve without the encouragement of our city?

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Steven Barnes
Kaneohe, HI 96744

Speaker Registration/Testimony

Name	June C
Phone	6263186313
Email	june.celica@gmail.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No

Written Testimony

Testimony Attachment

Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Alinna Figueroa
Phone	8083663378
Email	alinnafromhawaii@yahoo.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25 (2019)
Your position on the matter	Oppose
Representing Organization	Self
Do you wish to speak at the hearing?	No
Written Testimony	I am testifying in opposition to the current language of Bill 25 (2019) relating to the adoption of the state energy conservation code. I am writing to ask your support for a CD1 introduced by Councilmember Kobayashi, that will allow residents to have an affordable and clean gas water heating option.
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Jonathan Boyne
 Phone 8089514934
 Email boyne@hawaii.edu
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25 2019
 Your position
 on the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

Written
Testimony

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you

to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Jonathan Boyne

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Midi Cox
 Phone 8588767416
 Email midicox@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am writing in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. The modernization is desperately needed after many years without changes. In the meantime, changes in technology, building materials, and best practices make it possible to build better and smarter in Honolulu, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by

requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo for considering my concerns in support of Bill 25.

Midi Cox, Manoa

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Kapua kawelo
Phone 8088641014
Email Jobykapua@gmail.com
Meeting Date 08-22-2019
Council/PH
Committee Zoning
Agenda Item Bill 25
Your position on
the matter Support
Representing Self
Organization
Do you wish to
speak at the
hearing? No

Written Testimony I support this critical clean energy bill for the state of Hawaii! As a state, what he
needs to reduce our reliance on fossil fuels and use the power of the sun, which we
have a lot of, to power our lives. aloha aina!! Kapua Kawelo

Testimony
Attachment
Accept Terms and
Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Benton Pang
 Phone 7376550
 Email launahele@yahoo.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

Mahalo for considering my testimony in support of Bill 25.

Benton Kealii Pang, Ph.D.
Pālolo Valley

Testimony
 Attachment
 Accept Terms and Agreement ¹

IP: 192.168.200.67

To: The Committee on Zoning, Planning and Housing
From: Alan Stockton
Date: 22 August 2019

Aloha, Chair Menor and members of the Committee

I am in strong support of Bill 25, with the modification that the level 1 charging for electric vehicles (EVs) be changed to level 2 charging and expanded to 50% or more of parking stalls, with infrastructure in place to easily expand further as needed. It is widely expected that, within a year or two, the price of EVs will be comparable to that of similar gasoline-powered vehicles. Current EVs have ranges of >200 miles on a charge, and, as anyone who has driven an EV will confirm, after driving one, going back to a gasoline-powered car is a depressing experience. On an island like Oahu, where one can get anywhere and back a couple of times on one charge, there will soon be little reason to drive any other kind of vehicle.

On the water-heating part of the bill, in the last hearing, I heard the point made that people buying homes should be allowed to choose gas heating if they wish. But this argument is specious—when a new home is built as part of a subdivision, it is the *developer* who makes the initial choice. The developer naturally wishes to keep his or her costs down, but it is the homeowner who will be stuck with paying utility bills for the duration of ownership. With typical renewable water heating, the initial costs of installation will be amortized after 3 or 4 years, and water heating will be essentially free after that. So the homeowner ultimately benefits by having renewable water heating, and the rest of us will benefit from not having continuing CO₂ emissions.

August 21, 2019

To: Chair Menor and Members of the Zoning, Planning and Housing Committee

From: Barbara Polk

RE: SUPPORT FOR BILL 25 (2019) with suggestion for amendment

This bill sets the regulations for construction of the residential housing and commercial buildings that will probably still be standing 30, 40, 50 or more years from now. Meanwhile, climate change as a result of global warming is impacting us now. I know that in the political arena, compromise is the name of the game. But it is really too late for that now. **I urge you to be bold, to be leaders, and to make sure that the regulations passed now will help prevent catastrophic climate change and will be appropriate in the future.**

Please amend this bill to require readiness for AC Level 2 stations for all units in residential buildings and private homes. Level 1 is not enough, since it can take 12 hours to get a reasonable charge and up to two days to get a full charge. That length of time is much too long for people to be comfortable that they will not run out of charge. As a result, residents who cannot afford to upgrade to Level 2 will be hesitant to get an electric vehicle.

In addition, stations for only 25% of parking places in residential buildings will not be sufficient. It is important to make it easy and desirable for people to switch to electric vehicles. Two years ago I was in the market for a new car, having waited several years to replace the old one because I wanted to buy an electric vehicle. I was most upset to learn that my 30 year old building would need a costly upgrade to install an Electric vehicle charger—and also didn't have a spare parking place for one. I don't want that to happen to people moving into newer homes or apartments!

Although providing charging capacity at each parking place will increase the cost of a new home or apartment somewhat, that increase is substantially less than would be required if owners had to make the change later.

Increasing energy efficiency won't happen unless there is a requirement that this infrastructure be provided in all new residential buildings, including private homes. For these reasons, **I urge you to amend this section to require EV readiness at AC Level 2 for each parking place in new residential buildings.** The issue of climate change is too pressing to require anything less than the most advanced current technology.

I also urge you to require roof-top water heaters in all new residential homes and buildings. The Gas Company, that currently has only 5% renewable inputs, with plans to raise that to only 10% over the next year or two, claims that people should have a choice of gas or electricity. But except for a few individually designed and built homes, buyers do NOT have a choice—they must take whatever the builder puts in. Because of the substantial savings to residents in the long run and the substantial public benefit of decreasing ozone depleting emissions, I urge you to require builders to install solar water heating. They have shown they will not do this if not required to do so.

Please amend and pass this important bill to reduce energy consumption as a step toward reducing global warming. We count on you to be the leaders who will help preserve our environment for our future and that of our children and grand-children.

Speaker Registration/Testimony

Name John Maurer
 Phone (808) 372-0386
 Email john.from.stl@alumni.stanford.edu
 Meeting Date 08-21-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25 (2019)
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

I support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do. I recently bought an EV for environmental reasons and have quickly learned the hard way that Level 1 charging is rather slow and limiting.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs

for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life (again note, our family just purchased an EV). This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then. For those who have Level 1 chargers at home, it can become critical that EV stations are readily available when venturing on longer road trips (e.g., Oahu's south shore to north shore and back).

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Written
Testimony

Electric vehicles (EVs) will replace gas cars before long. It's already happening! Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership! We're all very proud (indeed!) to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal (boo!). The Hawaii legislature did very close to nothing this year. That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about saving consumers money. Mahalo for your kokua!

Testimony
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and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Alejandro (Alex) Salinas-Nakanishi
 Phone 808-284-7456
 Email asalinas1313@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear ZPH Chair Menor and Committee Members,

I am writing to you to humbly express my support for Bill 25. If we leave the choice of solar vs. non-solar to developers, landlords, and builders, they will most likely choose the cheapest option for themselves. And the actual homeowners or renters will be stuck paying for the bill. And, of course, natural gas emissions are toxic and contribute to global climate change. As a young person, this affects me immensely. When my wife and I are ready to have kids, I want to feel comfortable about bringing them into a world with clean air, clean water, and enough food.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. My family hopes to buy an electric car in the next year, and it would make a huge difference if we knew that we could charge this car at work.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

Written Testimony 1. Lower the cost of living for long-term Hawaii residents. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. An electric water heater accounts for over 25% of the average electric bill.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge these cars... Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV.

2. Help to fight our climate crisis. Burning methane and fossil fuels contributes to climate change. We need infrastructural solutions to this global problem. You could be a part in helping to change our institutions so that it is easier for individuals to live pono with the planet.

3. Show some leadership!

Beloved state lawmakers, we are looking to you for leadership. Please write laws that help protect us from sea level rise, catastrophic hurricanes, and torrential flooding. This bill, and stronger amendments, deserve your support.

You are our leaders. Please help to make a positive difference on these islands and in this world.

Best Regards,
Alex

Testimony
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IP: 192.168.200.67

Speaker Registration/Testimony

Name Laurel Nakanishi
 Phone 8082847456
 Email LAUREL.NAKANISHI@GMAIL.COM
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear ZPH Chair Menor and Committee Members,

I am writing to you to humbly express my support for Bill 25. My family has had a solar water heater since before I was born. We've never had to pay for water heating, but I know that many families do not have that luxury. If we leave the choice of solar vs. non-solar to developers, landlords, and builders, they will most likely choose the cheapest option for themselves. And the actual homeowners or renters will be stuck paying for the bill. And, of course, natural gas emissions are toxic and contribute to global climate change. As a young person, this affects me immensely. When my husband and I are ready to have kids, I want to feel comfortable about bringing them into a world with clean air, clean water, and enough food.

Written Testimony Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. My family hopes to buy an electric car in the next year, and it would make a huge difference if we knew that we could charge this car at work.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. An electric water heater accounts for over 25% of the average electric bill. Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge these cars... Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV.

2. Help to fight our climate crisis. Burning methane and fossil fuels contributes to climate change. We need infrastructural solutions to this global problem. You could be a part in helping to change our institutions so that it is easier for individuals to live pono

with the planet.

3. Show some leadership!

Beloved state lawmakers, we are looking to you for leadership. Please write laws that help protect us from sea level rise, catastrophic hurricanes, and torrential flooding. This bill, and stronger amendments, deserve your support.

You are our leaders. Please help to make a positive difference on these islands and in this world.

In gratitude,
Laurel

Testimony
Attachment
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Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Lucie Schrager
 Phone 8082825456
 Email L1schrager@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

As a young person, I am constantly worrying over the future of our planet as well as our state itself. Hawaii is undoubtedly one of the most beautiful and special places on Earth, and is prized for its one of a kind ecosystem. It is only right that Hawaii should be at the forefront of rapid action against climate change. Bill 25 makes great strides toward achieving goals of fostering the care of our environment, and is a step in the right direction in terms of taking on climate change.

Mahalo for considering my testimony in support of Bill 25.
Lucie Schrager, Ewa Beach, HI

Testimony
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IP: 192.168.200.67

In Support of Bill 25 (2019)

Aug. 22, 2019

Dear Committee Chair Menor, Vice Chair Waters and ZPH Committee Members,

The urgency of passing Bill 25 this year cannot be overstated. After months of record high temperatures, 12.5 billion tons of ice fell off Greenland into the ocean IN ONE DAY last week. On July 9th of this year Sir David Attenborough of BBC News told a meeting of the British Business, Energy and Industrial Strategy Committee that climate change is "speeding up". (For some of the most important facts about the climate crisis, please view: [Climate Change—The Facts in 4 Minutes](#) ; click the picture that appears.)

If all the ice on Greenland melts, scientists predict a 20 foot rise in sea level around the world. Can you picture a 20 foot (or even 3 foot) rise in sea level in Hawaii? This is serious. What can we do?

Bill 25 as written attempts to make two substantive changes in the lives of Hawaii's citizens:

- 1) how people heat their water—by the sun or other renewable energy source rather than by gas
- 2) how they get around the island—by electric vehicle rather than by a fossil fuel-driven vehicle

It is up to you, our leaders, to understand the crisis we are in, and make these new options available to as many of Hawaii's citizens as possible. Bill 25 will not completely solve this crisis, but it is a step in the right direction, and will show people how they can take small, incremental steps that make a significant difference.

In addition, long-term economic benefits will accrue to Hawaii's citizens from the passage of Bill 25:

Water heating: After the initial cost for solar panels is paid off (3-5 yrs), the home owner will never again receive a gas or electric bill for heating water.

EV-Ready infrastructure: When the infrastructure for an EV charger is installed in new constructions, the cost savings is considerable. For example, the infrastructure for a Level 2 charger could cost \$2500 (or much less) at the time of construction vs \$10,000 if retrofitted.

Electric vehicle ownership/leasing: Purchase cost continues to drop; driving range continues to increase; EVs requires no gas, no oil, no transmission fluid, no water; maintenance costs are substantially lower than for fossil fuel cars.

These benefits do not include the environmental benefits (reduced global warming; less air, water and ground pollution; fewer health problems due to less pollution)

It is not a secret that people working in fossil fuel industries (coal, oil, gas) will be negatively affected by the elimination of fossil fuels and will need retraining in clean energy jobs. Government as well as private companies will need to play large roles in this transition. This is not socialism, this is people helping people and people helping the planet. (Think of the U.S. government's role in WWII where women were quickly trained to make weapons of war.) The current moniker for this transition is the Green New Deal. All levels of government and businesses—including gas and fossil fuel companies in Hawaii—should play active roles in this transition. They, along with the State Legislature and City Council, must acknowledge that these industries are harming the planet, that the shift to clean energy sources must be made, and that providing appropriate assistance to workers as needed is essential.

Some amendments to Bill 25 make sense given our new reality:

- Require 75% (not 25%) of new multi-dwelling home and commercial parking stalls be made EV-Ready. (Vancouver, Canada, is now requiring 100% of stalls be EV-Ready.)
- Require Level 2 (not Level 1) chargers be installed (most municipalities adopting similar laws are now mandating Level 2 chargers due to their efficiency)
- State clearly that fossil fuel energy sources are no longer an option; if choices are to be made, only clean, renewable energy options are acceptable

We can all sense that Bill 25 is the right thing to do. Let's get it done now and become leaders again in the race to save our planet and our people. Thank you.

Jan Pappas – Aiea, Hawaii

Speaker Registration/Testimony

Name Korynn Grenert
 Phone 8086758254
 Email korynnng@hawaii.edu
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

Written Testimony In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Sincerely Korynn Grenert, Honolulu Hawaii 96816

Testimony

Attachment

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and Agreement ¹

IP: 192.168.200.67

Date: August 22, 2019

To: Councilmember Ron Menor, Chair
Members of the Zoning, Planning and Housing Committee

From: Christine Trecker

RE: Bill 25: Relating to the Adoption of the State Energy Conservation Code

I applaud the city council for introducing Bill 25. A shift to clean renewable energy is a smart investment in Hawaii's future and a critical step toward addressing our climate change crisis.

The key question now is:

Will Bill 25 lead to a truly bold, effective energy conservation code or will certain provisions in this bill remain, impeding Hawaii's progress toward a clean energy future?

I strongly urge you to strengthen Bill 25 to ensure the language reflects the following:

- make renewable energy water heating mandatory, removing the current bill's provision allowing gas as an alternative;
- specify Level 2 EV charging capability (vs Level 1) be required in multi-unit residential parking stalls; and
- specify at least 50% (vs 25%) of parking stalls in commercial and multi-residential buildings be EV charger-ready.

Allowing gas energy as an alternative to renewable energy favors the relatively few gas industry workers over everyone else; and the developers, landowners and builders who will likely opt for a "gas option" to lower their cost to increase profit. While a gas option may keep home prices down in the short term, ultimately homeowners will be stuck paying far more in gas bills long term, and everyone will be saddled with the environmental cost of gas emissions.

It is illogical and ultimately costly not to sufficiently equip new residential and commercial buildings with adequate EV charging capabilities. Gas guzzling cars are steadily being replaced by energy efficient electric cars. New buildings that will be standing many decades from now need to reflect this positive reality and help accelerate it by making at least 50% if not 100% of building parking stalls Level 2 EV charger-ready.

You have the opportunity to create a bold new State Energy Conservation Code. I urge you to pass Bill 25 with the above amendments. The people you serve and future generations deserve nothing less.

Many thanks for the opportunity to testify.

Speaker Registration/Testimony

Name Catherine Lau
 Phone 8087489769
 Email jeremylau@aol.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the No
 hearing?

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

I support this clean energy and climate measure that would update the City & County of Honolulu's building's 13 year old energy code. We need to increase health and comfort of our population while reducing energy use for new homes and buildings. It would update the O'ahu to highlight changes in technology and make use of Honolulu's building environment. We need this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy.

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters. It will close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Bill 25 helps Honolulu transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened to require Level 2 charging

capacity in all new parking stalls (for commercial and multi-family buildings). I know this because it has stopped me as a condo owner, from purchasing an electric car. This will help to “future-proof” new construction and accelerate our clean transportation future. Please think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Catherine Lau

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Don Shaw AIA
 Phone 808-295-7429
 Email DonShawAIA@mac.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: Don Shaw AIA
 Date: Tuesday, August 20, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I am speaking as a practicing architect and former Associate Professor at UH School of Architecture.

Written
Testimony

I support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

Please do the right thing for our environment.

Signed,
 Don Shaw AIA
 41-949 Laumilo Street
 Waimanalo, Hawaii 96795

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Sherry Pollack
 Phone 8082398276
 Email davidsher@juno.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

TO: The Committee on Zoning, Planning and Housing
 FROM: Sherry Pollack

In STRONG SUPPORT of BILL 25

Dear Zoning, Planning, and Housing Committee Chair Menor and Committee Members,

The people of Honolulu are looking to you for leadership in our fight against the climate crisis.

Written Testimony Efforts to move to a clean energy economy and expand green infrastructure are crucial pieces in our struggle to make the State zero-emission as soon as possible, and meaningfully address the climate emergency we face. Bill 25 would help advance these zero emission efforts.

Please strengthen this Bill by raising the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. We need this to help transition to clean transportation and meet our clean energy goals.

Further, I urge you to reject the disingenuous, false narrative coming from special interest groups who testified against Bill 25. Their arguments are based purely on greed, and simply shameful. We must stop allowing the profit margin of a few special interest groups from outweighing the needs of the people, and in this case, threatening our chances for a livable future.

By passing Bill 25, you send a message to the public that you care about helping us save our hard-earned dollars, and you also care about fighting for a safe climate future

for our children. Solar water heaters pay for themselves in just a few years, lowering the cost of living for Hawaii residents. They are not only cost-effective, but will dramatically reduce our greenhouse gas emissions. The way it works now, it's the developers: land owners and builders who get to choose, and they are choosing at our expense. If actually given a choice, and all the facts, the vast majority of homeowners prefer renewable water heating, because it's far cheaper in the long term. Bottomline, to give homeowners that benefit, developers need an ordinance, as experience has shown they won't make the right choice that's best for the community.

The legislature has failed all of us. They chose to ignore the dire warnings from climate scientists that we have less than a decade to make meaningful greenhouse gas reductions or face a collapse of our life-support system. We need leaders who have the courage to do something about the climate crisis. I hope you are those leaders.

Please actively support this bill and take a step toward a livable future on our planet.

Mahalo for this opportunity to testify.
Sherry Pollack

Testimony
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and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Burt A Furuta
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 Email bfuruta@hawaii.rr.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position on the
 matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

I support Bill 25, but request some changes. Electric vehicles are the vehicles of the future. Requiring only 25% of stalls to be EV-ready in Item 17 is too low. Please raise the requirement, perhaps to 75%.

Written Testimony

Level I charging is not practical. Nobody will want to use Level 1 charging because it takes too much time. Level 2 is not a luxury, it is a necessity. Please change all Level 1 requirements to Level 2.

Considering our state's goal of having 100% renewable energy by 2045, it makes sense to require renewable water heating. It is better for the environment and is cheaper than natural gas in the long run.
Thank you.

Testimony
 Attachment
 Accept Terms and
 Agreement 1

IP: 192.168.200.67

August 22, 2019

To: Chair Menor and Committee Members

My comments are in support of Bill 25, but with amendments to support more practical application of the bill.

1. There are dozens of new EVs scheduled to come out in the next 1-2 years, including trucks and SUVs. Many of these will come with longer mileage ranges of over 200 miles which will make them attractive to island users, however, with level 1 charging it will literally take a couple of days to achieve a full charge – **please amend the bill to require level 2 charging to be installed instead of level 1**. It will be much more costly to install later. Without adequate charging facilities it will be difficult to get people to convert to EVs.
In addition, if we are going to 100% renewable by 2045, I don't see how mandating only 25% of parking stalls be EV-ready gets us there. The number should be 100%, but at least 50% so that every 2 stalls can share a charger.
2. **The solar water heating provision** is also critical as it goes hand in hand with affordable housing goals by reducing utility costs. This is a no brainer, this cost is a drop in the bucket compared to the total investment in building a house, and the savings over the long-term will far exceed the investment. And as more people drive EVs and oil prices go up, utility costs are likely to rise substantially, so a solution to offset that makes sense. The argument that people should have a choice is ignorant and self-serving for the special interests. People should not have a choice if it negatively impacts others. At this point why aren't we mandating all qualifying structures to install Photovoltaic systems in order to help meet the State's goals of 100% renewal energy by 2045?

You can't please everyone and sometimes sacrifices have to be made for the greater good. The government at both the Federal and State levels has not done near enough to educate the public on why these changes are necessary. Most of the general public today think the sum of the climate change impacts will be warmer weather, a few more storms every summer and a few feet of sea level rise over the next 50 - 100 years. They either aren't aware of the worst outcomes of climate change or haven't bought in because they don't see or hear much from the government. We are living in a world where science and media have been forced to change the name of the phenomenon of what was once called "Global Warming" to the far less menacing and more vague "climate change".

As a result most people don't realize we are in a fight for our lives and for those of our children. The terrifying reality is that if we don't change now we will likely see the collapse of civilization in our life time. This unfortunate reality needs to be validated by the government publicly so people understand and buy in to what needs to happen to try to save our future. The current federal administration is out to lunch at the most critical moment in history for the future of

mankind, it is really up to the state and local governments as well as private industry to get the ball rolling now.

With all the rooftop solar already in place on Oahu, and the access to so many renewable forms of power including solar, wind and hydroelectric, Oahu has a huge opportunity and at the same time an important responsibility to become an economic model for renewable energy conversion and sustainability, one that will inspire other states and nations. **We need your leadership now!**

Thank you!

Nathan Sparks, no industry affiliations

Speaker Registration/Testimony

Name Jayson M Chun
 Phone (808)-258-8447
 Email jmchun66@yahoo.co.jp
 Meeting Date 08-27-2019
 Council/PH Zoning
 Committee
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

Global warming is hitting us hard, as we have seen how hot it has been this past July. We need to move quickly to reduce our energy use. It is time to move past vague lip service to energy and climate issues and so something to modernize the City & County of Honolulu's building energy code.

I would like to point out that as an electric vehicle (EV) owner, I am shocked at the lack of chargers on this island. Many of my friends want to drive an EV, but they live in apartments and cannot charge their car. Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and help speed up our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. As an owner, I know that level 1 charging is too slow – it often takes 10 hours to charge just 40 miles to my battery.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Jayson M Chun
Aiea, HI 96701

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Harald Ebeling
 Phone 808 988-1605
 Email haraldebeling@gmail.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Support
 Representing Self
 Organization
 Do you wish
 to speak at the No
 hearing?

Dear ZPH Chair Menor and Committee Members,

I am writing to express my strong support for Bill 25, but request a few changes as detailed below.

Written
Testimony

Regarding water heaters I can personally attest to the efficiency and financial benefits of solar hot water heaters. We installed solar hot water heaters on our single-family home less than four years ago and had amortized the cost of the installation 2 1/2 years later. Requiring these environmentally friendly and cost-saving heaters for all new construction should not need any debate - the benefits for our planet and the savings are obvious. Please do not allow contractors and developers to install gas water heaters under any pretext. No Hawai'i home owner in their right mind would choose to pay natural gas bills year after year when renewable water heating is practically free after a few years. For the benefit of homeowners and to reduce fossil-fuel emissions, please ensure per ordinance that the right choice (renewable and cost-saving) becomes mandatory. We have abundant sun here; burning fossil fuel instead to heat our water amounts to recklessness.

Regarding the provisions in Bill 25 for EV charging stations I ask you to replace all occurrences of "Level 1 charging" with "Level 2 charging". Level 2, which provides much faster charging than Level 1 and thus greatly facilitates the adoption and use of EVs, is being implemented nationwide, fast, and should be the norm in Hawai'i too. The slightly higher upfront cost will not deter any potential homeowner or make housing unaffordable. Having an EV charging station is going to be viewed as a necessity very soon; by ensuring that the required infrastructure (Level 2!) is in place, Bill 25 will help move our state into a more energy-conscious and self-sufficient future.

Similarly, I ask that you increase the percentage of EV-ready parking stalls in Item #17. The current figure of 25% will prove inefficient in only a few years and should thus be

raised to at least 50%.

Mahalo for doing your part to move Hawai'i forward toward a better future based on renewable, non-polluting energy sources!

Aloha,

Harald Ebeling

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Margaret Russo
 Phone 808-443-8032
 Email Ret.russo@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item BILL 25 (SOLAR WATER HEATING AND EV READINESS)
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Written
 Testimony

I support Bill 25 (solar water heating and EV readiness). Renewable energy (such as solar) is cost-effective and is the wave of the future. In the last few years, my home has been retrofitted with a photovoltaic system (and backup batteries) with grid tie-in. My electric utility bill is currently \$26.17 per month! I used to pay almost \$400/month for electricity. Who says solar energy, including solar water heating, is more costly? Certainly, renewable energy is less expensive in the long run—and better for the environment. Since my PV system produces more energy than I use, I'm looking for an electric vehicle as a way to harness the surplus kilowatt hours. However, electric-vehicle battery-range anxiety is a big worry! More Level 2 charging stations are needed. The Level 1 charging rate of 5 miles per hour is practically useless! Requiring the installation of faster Level 2 chargers makes sense.
 I hope you will vote in favor of Bill 25. Please show foresightful leadership that will help Hawai'i and the world. Although I live on the Big Island, my county often looks to Honolulu for leadership and guidance.

Testimony
 Attachment
 Accept Terms
 and 1
 Agreement

IP: 192.168.200.67

To: The Committee on Zoning, Planning and Housing
From: Dawn Morais Webster Ph.D.
Date: Thursday, August 22, 2019

In strong support of Bill 25—requesting amendments

Dear ZPH Chair Menor and Committee Members,

I support Bill 25 but ask that you change all the bill's language about Level 1 charging to Level 2 charging. Level 2 is fast becoming the standard nationwide. It makes EVs more practical for homeowners and renters. HI drivers must eventually switch to EVs. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from doing so. Arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable" are deliberately misleading.

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice. That holds them prisoner to gas bills forever. Most homeowners would choose renewable water heating, because it's far cheaper in the long term. Developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m. inflicting pain on all within earshot.

Yes, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will become inadequate in the next few years.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is foolish. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that?

Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. We need leadership! We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Let's not wait for a disaster to act. We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up.

You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about saving consumers money.

Please provide the leadership that so far has been lacking to move us forward. Hawaii's survival and the well-being of its people depend on your willingness to act now. Thank you.

Speaker Registration/Testimony

Name	Barbara George
Phone	638-5690
Email	barbarageorge40@yahoo.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	Strongly SUPPORT
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Karen Shishido
 Phone 8083842173
 Email kshishido02@yahoo.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear Members of the Committee,

I strongly support the electric vehicle infrastructure requirements in the amendments and suggest that they be strengthened to require Level 2 or above charging.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is unnecessary. The marginal cost of electricity to run a solar hot water heater (on cloudy days for example) is just one fourth of what a gas tankless water heater costs in fuel monthly for the life of the equipment. Help families keep their bills low and stay in their homes by removing this loophole from the current law.

Written Testimony 2. Electric vehicles (EVs) will replace gas cars before long. How will condos and workplaces afford to install the electrical equipment needed for that? Installing it is far, far less expensive during construction than as a retrofit. Foresight through these commonsense requirements will help to keep the costs of driving an EV affordable for more of our community.

2. Help to fight our climate crisis. Gas is inherently not renewable and even with technological development underway it is highly unlikely to be so for decades at scale needed for a major metropolis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general. Remove these barriers, and people will adopt. Market transformation is happening quickly and the CCH must help our community be ready for it.

3. Please show leadership in the area of climate, clean energy and economic justice by supporting these amendments.

Sincerely,

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Lory Ono
 Phone 8082361628
 Email kealelani@gmail.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

Written
 Testimony This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Please put our planet's protection at the forefront of any decisions you make.

Mahalo

Testimony

Attachment

Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Jun Look
 Phone 8082306740
 Email junlook@yahoo.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position on
 the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Bill 25 continues the drive toward our island goal of self-sufficiency. This are steps toward our clean energy goal.
 Solar water heaters should have been mandated a long time ago. While the initial cost seems prohibitive, in the long run one saves a lot of money. My sister has one and I envy her savings!
 EV readiness is needed to make EV vehicles successful. Commercial building should be set up to support charging stations that are at Level 2. Many small steps are needed as we move to clean energy. Bill 25 steps us in the right direction.
 Mahalo

Testimony
 Attachment
 Accept Terms and
 Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Chaika Ganiron
Phone 8083458161
Email chaikaganiron@ymail.com
Meeting Date 08-22-2019
Council/PH Committee Zoning
Agenda Item 5
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
From: Chaika Ganiron
Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I strongly support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents.

Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis.

Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership!

We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about

Written
Testimony

saving consumers money.

Here's your chance to set an example. Take it!

[1] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

Thank you for the opportunity to testify.

Chaika Ganiron

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Joanna Maile Pokipala
 Phone 8082271298
 Email ygetemail@yahoo.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

My name Joana Maile Pokipala and I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make

electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25

Joanna Maile Pokipala

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Mark A. Nokes
 Phone 8089212265
 Email manokes@yahoo.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof"

new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Mahalo for considering my testimony.

Mark A. Nokes, Ph.D.
Honolulu, HI 96815

Testimony

Attachment

Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Art Isbell
 Phone 8083527156
 Email aisbell@icloud.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position on
 the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code." This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

Written
Testimony

Living in an apartment, we have no option to install a solar hot water system. However, we have replaced our conventional electric water heater with a high-efficiency heat pump water heater that cools the surrounding air in addition to heating water using only about 1/3 of the electrical energy. All new homes should have this option that Bill 25 would require.

Driving an EV as our only car, we paid over \$3,000 to install a Level 2 charging circuit in our assigned parking stall, a cost that many apartment owners cannot afford thus making EV ownership unlikely. This high cost could have been eliminated had Bill 25 been in effect when our apartment complex was built.

I encourage you to think urgently about climate change and our collective future when voting.

Testimony
Attachment

Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Ted Bohlen
Phone	8082943689
Email	Tbohl8@yahoo.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing Organization	Self
Do you wish to speak at the hearing?	No
Written Testimony	It is high time we updated our building code as called for in Bill 25 to limit waste of energy! This is critical now given the climate crisis! Please include level 2 chargers for electric vehicles in new commercial construction.
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Brice Conquest
 Phone 255-6576
 Email Briceconquest@gmail.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position on
 the matter Support
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Written
 Testimony I strongly support Bill 25. It will update our building code to reflect new technologies. It will provide for more solar water heaters by closing loopholes. It will provide more charging stations to encourage adoption of EV vehicles. I request that Level 2 charging be added to enhance the chargers. Hawaii is too dependent on fossil fuels and Honolulu can lead the way to more renewable energy.

Testimony
 Attachment
 Accept Terms
 and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Ronald FitzGerald
 Phone 8082633363
 Email ron.fitzgerald@juno.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof"

new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment. It is the right thing to do for the future of our Islands.

Thank you for considering my testimony.

Ronald B. FitzGerald CMD

Testimony

Attachment

Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Kathy Shimata
 Phone 8089882540
 Email kshimata@hawaiiantel.net
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25, State Energy Conservation Code
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to ensure we are doing everything we can to reduce our emissions and promote clean energy options.

Written Testimony

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we need to meet our carbon reduction goals in the face of climate change. This closes the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready." This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Dave Kisor
 Phone 8089656288
 Email panther_dave@yahoo.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Comment
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Written
 Testimony Rather than relying solely on photovoltaic, why not try solar collection atop high rise buildings? There are moving parts, but it's relatively simple. A parabolic mirror focuses the energy on a pipe carrying a fluid that when heated spins a pump that in turn operates a generator. Water works, as the fluid, but it doesn't retain the heat as well as oil or liquid sodium, which is used in large commercial / industrial projects.

Testimony
 Attachment
 Accept Terms
 and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Gene Marshall
 Phone 808-221-6048
 Email moreboost2000@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

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construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Gene Marshall, Pearl City, HI 96782

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Hokulani Beale
 Phone 909 556 2274
 Email hokumama@aol.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

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Written
 Testimony

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This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

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Mahalo for considering my testimony in support of Bill 25.

Hokulani Beale, Honolulu

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Marie-Louise Ansak
 Phone 808-784-9778
 Email mlansak@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

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Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make

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Mahalo for considering my testimony in support of Bill 25.

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name C. Keoahunui Uale Warrington
 Phone 951- 7574756
 Email cualesmile@aol.com
 Meeting Date 09-22-2019
 Council/PH Zoning
 Committee
 Agenda Item Bill 25, Relating to the Adoption of the State Energy Conservation Code
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

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Mahalo for considering my testimony in support of Bill 25.

C. Keoahunui Uale Warrington
Nuuanu

Testimony
Attachment
Accept Terms and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Paul Bernstein
 Phone 8083737161
 Email PAULBERNSTEIN2004@YAHOO.COM
 Meeting Date 08-22-2019
 Council/PH Zoning
 Committee
 Agenda Item Bill 25 First Reading
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the No
 hearing?

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am writing in support of Bill 25. Economists have long recognized the principal-agent problem that constrains incentives for energy-efficiency investments by either landlords or tenants in renter-occupied properties and the need for energy efficiency standards to overcome this market failure. That is, there are instances that regulators should invoke energy efficiency standards to effect a more efficient market outcome that improves the well being of society.

Bill 25 is one such case. The Bill's requirement for the installation of solar hot water (SHW) heaters would result in savings of up to \$8,600 per household over the expected life of the equipment compared to a standard grid resistance water heater.

Written
Testimony

Furthermore, any amendment to allow for gas water heaters should make sure that gas water heaters (GWHs) achieve at least the same emission reductions as SWHs with electricity back up. I say at least because the SWHs are less expensive than IGHs. Currently, the share of renewable natural gas (RNG) in The Gas Company's gas is less than 5%. Using the City's data on the different water heaters, I find that at 5% RNG, IGHs produce about four times as much emissions as SWHs under today's share of renewable powered electricity. As the amount of renewable electricity increases over time with the increasing RPS standards, the share of renewable gas will need to continue to climb. Thus, for an IGH to be on par with a SWH today, the gas must contain around 70% RNG. As the RPS standard increases, the share of RNG would need to increase to around 85% by 2030.

As for the Bill's requirement to make 25% of stalls in newly constructed multi-family facilities over 8 stalls and commercial parking facilities over 12 stalls "EV ready," this requirement will save Oahu renters greatly as it is far less expensive to incorporate EV readiness into a building as it is being constructed rather than retrofitting a building. This provision will also greatly reduce the cost of Hawaii meeting its clean energy goals.

Mahalo for the opportunity to submit comments in support Bill 25 (2019). In order for the City to cost-effectively meet its emission reductions goals, I urge you to support the Bill as proposed by the Administration.

Kind regards,
Paul Bernstein, PhD

Testimony
Attachment
Accept Terms
and 1
Agreement

✓

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Marilyn Mick
Phone	8084797764
Email	m2@pobox.com
Meeting Date	08-22-19yy
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Leah Yamamoto
 Phone 8082617533
 Email leahyy@hawaii.edu
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you

to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Sincerely,
Leah Yamamoto

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Katarina Ruiz
 Phone 8083795648
 Email katarinavictoria.ruiz@gmail.com
 Meeting Date 08-22-2019
 Council/PH Zoning
 Committee
 Agenda Item BILL 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

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Written
 Testimony

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Mahalo for considering my testimony in support of Bill 25.

Katarina Ruiz, Manoa

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Wally Inglis
 Phone 8087342313
 Email wallyinglis@yahoo.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position on
 the matter Support
 Representing
 Organization Self
 Do you wish to
 speak at the
 hearing? No

Aloha Chair Menor, Vice-Chair Waters and
Committee Members:

I strongly support Bill 25 which promotes energy conservation and responsible
environmental planning.

When we built our house in Palolo almost thirty years ago, we opted to install a
solar water heater. It was a decision that has brought personal benefits, and at the
same time represents our small contribution to reducing the carbon footprint of our
community.

Written Testimony

This bill recognizes the many technological advances that have been made since we
built our house. It also updates our City and County's dated building code.

Please advance this measure and do all you can to see that it results in final
approval by the full council.

Aloha,

Wally Inglis
Palolo Valley

Testimony
Attachment

Accept Terms and
Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Donelle Sawyer
 Phone 6462509105
 Email donelle@donelle.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25 - Relating to the Adoption of the State Energy Conservation Code
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I write in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

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Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you to think

urgently about climate change and our collective future when voting.

Grateful for your consideration of my testimony in support of Bill 25.
Mahalo nui, Donelle Sawyer, Diamond Head

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name charles reppun
Phone 2396123
Email leereppun@gmail.com
Meeting Date 08-21-2019
Council/PH
Committee Zoning
Agenda Item agenda item 5
Your position on
the matter Support
Representing Self
Organization
Do you wish to
speak at the
hearing? Yes

Written Climate change is by far and away the most important item in the world. A state of
Testimony emergency. This bill is a step in the right direction and should be as strong as
 possible. The real problem is that we have an economy that relies on constant
 building of housing. Population growth economics

Testimony
Attachment

Accept Terms and 1
Agreement

IP: 192.168.200.67

David Atcheson
1212 Nuuanu Ave Apt. 906
Honolulu, HI 96817
atchesond@gmail.com

August 21, 2019

Honolulu City Council

via <http://www.honolulu.gov/ccl-testimony-form.html>

RE: Bill 25 CD1

Relating to the Adoption of the State Energy Conservation Code
Support, with amendments

Dear Councilmembers,

This testimony builds on my comments I submitted July 19. I am pleased to see Bill 25 advance -- we are in a climate crisis and this bill moves us in the right direction, toward a transition to 100% renewable energy.

In my last letter, I suggested that the 25% percentage requirement for EV-ready parking stalls in multi-unit buildings may be too low. I am convinced of that now as I see other cities set the requirements higher (see "Vancouver to require EV charging stations for all new condo parking," Automotive News Canada, 3/15/18). **I urge you to set the requirement to at least 50%.** This will help avoid or at least delay expense and disruption later to meet growing demand as we electrify our transportation system.

I would also like to urge that the bill be amended to require that stalls be ready for Level 2 chargers. In addition to helping alleviate "range anxiety," a hurdle to electrical vehicle adoption, Level 2 readiness takes into account the growth of the sharing economy. More and more people, particularly young people, are recognizing that using shared cars instead of owning their own makes a lot of sense. Car share partnerships with apartments and condos are growing (see "These New Apartments Come With A Shared Car," Fast Company, 1/11/17, and

"BMW's ReachNow partners with apartment building to offer dedicated fleet of car-sharing vehicles," GeekWire, 6/5/18). **Let's get ready for *electric* vehicle car-sharing in multi-unit buildings on Oahu. Level 2 readiness is all the more important when you consider the frequent use of shared vehicles with less charging time between trips.**

I'd also like to urge you to maintain the requirements in the bill for residential water heating using solar or other types of renewable energy. I am not persuaded by arguments against this requirement relating to homebuyer choice. The choice is largely one that the developer makes. Absent this requirement, short-term thinking is more likely to guide this choice rather than the long-term interests of homeowners and renters -- who will save a lot of money over the long term with a renewable energy hot water system.

I am enthusiastic about this bill as a step in keeping the climate crisis from becoming climate chaos *and* a way to serve the economic interests of Honolulu residents.

Thank you for considering these comments.

Sincerely,

David Atcheson

Speaker Registration/Testimony

Name Noel Morin
 Phone 8089877428
 Email nmorin99@yahoo.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 5
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear ZPH Chair Menor and Committee Members,

I support Bill 25 but recommend that you make changes to the bill for a number of reasons.

Please replace references to Level 1 charging with Level 2. Level 2 (240v) charging offers a significantly higher level of utility than Level 1. This is the standard – all manufacturers recommend Level 2 as it will allow much faster charging and eliminate the need to wait for many hours to ‘fill up’. In residential situations, particularly multi-dwelling scenarios, this would allow a larger number of people to avail of the service. As EV adoption increases, this will be especially important. At the moment, demand for Level 2 charging are leading to queues.

Written Testimony Please increase the percentage of parking that must be EV-ready. EV adoption will escalate over the next few years and 25% will quickly become obsolete. Given the significant costs of retrofits, it behooves us to get it right the first time. There are communities where the requirement is 100%! We can do better than 25%.

Please remove language that is counter-productive to our efforts to encourage practices that help us increase our chances of meeting our renewable energy goals. Language that encourage the continued dependency on fossil fuel (“People should have a choice of a gas water heater...”, for example) are unnecessary. Please remove them. People already have a choice of water heater option to install and many, if given the choice, would go with the option that does not require a dependency on gas. With solar hot water, homeowners or residents will be able to experience lower costs after the first few years as the initial costs are paid. Importantly, they will be free of the burden of a gas bill.

Thanks for supporting efforts to truly reduce the cost of living for our residents and ensuring that Hawaii continues to be a leader in fighting our climate crisis.

Noel Morin

Hawaii Electric Vehicle Association and Big Island Electric Vehicle Association

Testimony

Attachment

Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Randy Ching
 Phone 808-942-0145
 Email makikirandy@yahoo.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code.

Written Testimony This modernization updates Honolulu's existing building energy code—which is over 13 years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This closes the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide solar water heater options for those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by

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Mahalo for considering my testimony in support of Bill 25.

Testimony

Attachment

Accept Terms
and Agreement

1

IP: 192.168.200.67

Speaker Registration/Testimony

Name C. Keoahunui Uale Warrington
 Phone 951-7574756
 Email cualesmile@aol.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: C. Keoahunui Uale Warrington
 Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Written
Testimony

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership! We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year. That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about

saving consumers money.

Here's your chance to set an example. Take it!

Thank you for the opportunity to testify.

C. Keoahunui Uale Warrington

Testimony

Attachment

Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Joe Rodrigues
 Phone 554-1719
 Email JRodrigu@Hawaii.com
 Meeting Date 08-22-19yy
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Comment
 Representing Self
 Organization
 Do you wish to speak at the hearing? Yes

Written Testimony Please don't pass Bill 25 The city Council should not take away the rights to the home owners to choose gas or solar. The state give tax Break to solar customers but no tax Break for gas customers. So please don't take away the home owners Rights.
 (DON'T PASS BILL 25)

Testimony
 Attachment
 Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Steve Piercy
Phone 7604773875
Email steve_piercy@hotmail.com
Meeting Date 08-22-2019
Council/PH Committee Zoning
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

Written Testimony As we move into a cleaner energy future, it is key to prepare with measures set forth in Bill 25. Let's please pass this legislation in order to be among the leaders in doing the right thing for our citizens and the clean energy goals we have.

Testimony

Attachment

Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Ashleigh Loa
 Phone 8082021211
 Email ashleighloa@gmail.com
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position
 on the matter Support
 Representing Self
 Organization
 Do you wish
 to speak at the No
 hearing?

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

Written
Testimony

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you

to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Dwayne A Munar
 Phone 8082245105
 Email dwayne_munar@yahoo.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make

electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

[Dwayne Munar, Makaha resident

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Andrea Berez-Kroeker
 Phone 8083675166
 Email andrea.berez@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 5
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: Andrea Berez-Kroeker
 Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I strongly support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents.

Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis.

Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential. Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership!

We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about

Written
Testimony

saving consumers money.

Here's your chance to set an example. Take it!

[1] <https://www.media.volvocars.com/us/en-us/media/pressreleases/248305/poll-finds-americans-feel-electric-vehicles-are-the-future-of-driving>

Thank you for the opportunity to testify.
Andrea Berez-Kroeker
Pālolo

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Bob Douglas
 Phone 8083330402
 Email danhieux@yahoo.com
 Meeting Date 08-21-2019
 Council/PH Committee Zoning
 Agenda Item 5
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
 From: Bob Douglas
 Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

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Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Written
Testimony

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership! We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year. That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about

saving consumers money.

Here's your chance to set an example. Take it!

Thank you for the opportunity to testify.

Bob Douglas

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Micah Hicks
Phone	8082008983
Email	micahmh@live.com
Meeting Date	08-21-2019
Council/PH Committee	Zoning
Agenda Item	5
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Cassalena Greene
 Phone 8083491539
 Email cassalenaagreen@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item 5
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? Yes

Chair Menor and Members of the Zoning, Planning, and Housing Committee,

I'm asking you to pass Bill 25, and require Level 2 charging everywhere in the bill.

Our townhouse has an electric water heater. Though there is plenty of room on the roof for solar hot water panels, putting solar in now is too expensive. If it had been installed when the townhouse was built, it would have paid for itself by the mid 1980s, and we wouldn't have had to pay that part of the electric bill for 35 years.

Written Testimony I also would like to buy an electric car, but I'm not sure I can afford it, especially with the cost of rewiring for charging. I drive from Mililani to Diamondhead and around that area for one job, and Mililani to Kailua for my second job, so Level 2 charging would be far better for me than Level 1. There's no charging available at either job.

This bill would have saved us thousands of dollars in water heating over the years, and made it more possible for me to get an EV. I support it and ask that you do as well.

Cassalena Greene
 Mililani

Testimony
 Attachment

Accept Terms
 and Agreement 1

IP: 192.168.200.67

Honolulu City Council
Zoning, Planning and Housing Committee
Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

This testimony is in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy usage in new homes and buildings. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis and meet our 100% renewable energy goal we already have in place.

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This closes the loophole that has allowed thousands of gas water heaters to be installed in recent homes as well as provide options for those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready". This will help to make electric vehicles accessible to residents who are put off due to our lack of existing infrastructure. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to accelerate our transition to a 100% clean energy future. Please act with urgency on climate change, global warming and our collective future when voting on this. Our and our keikis' lives depend on it.

Mahalo for considering my testimony in support of Bill 25.

Aristotle Pahed and Lisa Alskog, Ewa Gentry

From: CLK Council Info
Sent: Tuesday, August 20, 2019 9:17 PM
Subject: Public Infrastructure, Technology and Sustainability Speaker Registration/testimony

Speaker Registration/Testimony

Name Kelsey Loenhorst
Phone 7609645180
Email loenhorstk@gmail.com

Meeting Date 08-22-2019

Council/PH
Committee PITS

Agenda Item Bill 25

Your position on
the matter Support

Representing
Organization Self

Do you wish to
speak at the
hearing? No

Honolulu City Council
Zoning, Planning and Housing Committee
Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for

EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Kelsey Loenhorst
Honolulu, HI. 96815

Testimony

Attachment

Accept Terms and Agreement 1

IP: 192.168.200.67

From: CLK Council Info
Sent: Wednesday, August 21, 2019 6:05 AM
Subject: Public Infrastructure, Technology and Sustainability Speaker Registration/testimony

Speaker Registration/Testimony

Name Erin Meadows
Phone 415 425-7772
Email erin@meadows.org
Meeting Date 08-21-2019
Council/PH Committee PITS
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing
From: Erin Meadows
Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I support Bill 25.

Written
Testimony

Please change all the bill's language about Level 1 charging to be Level 2 charging. As an early adopter, and proud EV owner, I can tell you that Level 2 is becoming the standard nationwide, (if not globally) because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. As far as "range anxiety" goes, (fear one's battery won't last to the next charging station) I can tell you that I have worried FAR less about running out of photons, than I ever did about getting myself to a gas station when I used to drive with petrol. As far as I'm concerned "range anxiety" is a fear that is quickly put to rest once one actually adopts this "brave new" way of driving, and should not be a deterrent (as baseless as it is) for shifting to EVs. Hawaii should not be the state that lags behind this inevitable trend.

Arguments against Bill 25 are, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."
But this is a specious argument. With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers:

land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

Today, so many decisions that a consumer makes, are taken out of their hands. We are told to reject regulations because "the market will decide" - but if the "market" i.e. "we" never get to make those decisions, then all we are left to do is stand, mouths agape, and wonder how we ever found ourselves in "this position." Quite frankly, I find it offensive that we have to push so hard to simply protect the air we breath and the water we drink. You, our elected officials, are supposed to fight for us, so that your constituents can go to work, earn a living, and take care of our families, knowing that we have entrusted you to keep us safe.

In this instance, if actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership! We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about saving consumers money.

Here's your chance to set an example. Take it!

Thank you for the opportunity to testify.

Erin Meadows

Testimony

Attachment

Accept Terms and
Agreement 1

IP: 192.168.200.67

To: The Committee on Zoning, Planning and Housing
From: Laura Alskog
Date: Sunday August 18, 2019

In strong support of Bill 25

Dear ZPH Chair and Committee Members,

I recently traded in my beloved Toyota Tacoma for an all-electric Nissan Leaf with a 30kW battery because climate change is happening NOW, and we can no longer wait to act on it. The guilt and anxiety of continuing to drive a gas powered car while the earth is literally burning in so many places has become too heavy on my conscience. Before I bought the Leaf, I noticed electric vehicle (EV) charging stations here and there around the island so figured the transition would be a smooth and easy one. I couldn't have been more wrong. I live on the eastside, and luckily for me, I can charge my car at home, but I drive the H-3 to work at Pearl Harbor every day and the drive over the Ko'olaus uses about a quarter of the car's battery power each way. I didn't realize this would be the case, or that I would come to be dependent on EV charging stations if I wanted to do other normal driving, like go surf in town or to visit my or my fiancé's families in Ewa Beach or Kapolei. We were in Kapolei today and the new development Kapolei Commons seems to support EV drivers and has about ten charging stations in total (not including the three out-of-order ones), but it is still nowhere near enough stations to support the needs of the electric vehicles we currently have on the road. Today, on a Sunday, every single station was full, with about eight other EVs like myself circling the EV charging stalls, waiting for a Level 2 charging station to open up. The stress of this was intense, since I still needed to pick up groceries for my mom, grab lunch, get to work, and make it back over the H-3 and with the Leaf at 45% battery remaining, that is cutting it way too close.

We need so many more charging stations than we have currently available, and not just Level 2 stations (where EV drivers park and go somewhere else while their cars are plugged into the chargers for hours), we have a desperate need for Level 3 charging stations, which take about 20 minutes for a pretty significant charge. EVs are in and out of those stations fast and they're super efficient. My fiancé and I have had this same experience in so many other parts of the island, Ala Moana Center being particularly bad. The Honolulu Zoo is ridiculous. The charging station is *always* broken. We don't have the infrastructure in place to support the tiny percentage of EVs on the road now, how bad will it be next year when many more car companies come out with all-electric vehicles and EVs go more and more mainstream? For the people who can't afford the long-range Teslas, this is a super stressful thing to live with. Hawaii needs to support its EV drivers, who are doing their part to combat global warming and meet our emission reduction goals we have set in place. We need to make it easier to drive and own an electric car, not harder than it is to drive a conventional car. Oahu easily needs to have *at least* 25% if not 100% of its parking spaces EV charging compatible *now*, not in a year. I want owning and driving an electric car to be positive and fun, not a stressful and unnecessary additional source of anxiety in peoples' lives. If we implement this now, sooo many more people would be willing to go electric. It's the range anxiety that current EV drivers are living with that is holding the majority of the population back from making the switch. With so many of our current charging stations already in use or out of order/broken, some for months on end now, you can't guarantee you'll be able to get a charge anywhere you go. Climate change and global warming is here, is happening now, and is the biggest

threat Hawaii and humanity has ever faced. Please support our community with this tangible step in the transition to 100% renewable energy for Hawaii. Let's be nationwide leaders on this and inspire the rest of the country to do the same! EV drivers are doing their part, please support us and do yours. Thank you so much for your time!

(I understand Bill 25 pertains to multi-family residential charging stations, but please consider including/adding commercial EV charging stations as well. There is an enormous need to charge your EV while away from home to ensure you can get all the places you need to go stress-free)

From: CLK Council Info
Sent: Wednesday, August 21, 2019 7:34 AM
Subject: Council/Public Hearing Speaker Registration/Testimony

Speaker Registration/Testimony

Name Douglas Blackington
Phone 808-670-5157
Email dblackington@gmail.com
Meeting Date 08-22-2022
Council/PH Committee Council
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

Written
Testimony

As a current teacher of Physics/Chemistry/Engineering at a small private school in Kapolei, I have been keenly aware of the rapidly changing world due to climate change. The data is irrefutable. We are at a "do or die" moment in fighting climate change, and everyone, including all buildings must be involved in making positive modifications to help reduce emissions that are contributing to climate change.

Bill 25 will be a major step forward in addressing emissions by reducing the energy consumption, thereby using less electricity and therefore less emissions.

We must do this for our keiki's sake and there is no time to waste.

Mahalo for your valuable time and kokua.

Gratefully yours, Douglas Blackington

Testimony
Attachment

Accept Terms
and Agreement 1

IP: 192.168.200.67

From: CLK Council Info
Sent: Tuesday, August 20, 2019 7:56 PM
Subject: Council/Public Hearing Speaker Registration/Testimony

Speaker Registration/Testimony

Name	Katie Kingsley
Phone	8082530129
Email	kwkingsley@yahoo.com
Meeting Date	08-29-2019
Council/PH Committee	Council
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	I support clean energy initiatives in new construction— Our world needs it. Thank you
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

From: CLK Council Info
Sent: Tuesday, August 20, 2019 8:02 PM
Subject: Council/Public Hearing Speaker Registration/Testimony

Speaker Registration/Testimony

Name Linda Legrande
Phone 808) 384-0450
Email lindalegrande2243@gmail.com
Meeting Date 08-22-2019
Council/PH Committee Council
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

Written Testimony This is a very important 'first step' to making our islands energy efficient for our future, our kids and grandkids. We must take these preventive measures NOW. It's the old adage, pay me now or pay me later.
Thank you. Linda Legrande

Testimony
Attachment
Accept Terms and Agreement 1

IP: 192.168.200.67

From: CLK Council Info
Sent: Tuesday, August 20, 2019 8:44 PM
Subject: Council/Public Hearing Speaker Registration/Testimony

Speaker Registration/Testimony

Name Derek Bacigal
Phone 887631139
Email derek.bacigal@gmail.com
Meeting Date 08-22-2020
Council/PH Committee Council
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

Honolulu City Council
Zoning, Planning and Housing Committee
Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to accelerate our clean transportation future.

Please advance Bill 25.

Mahalo for considering my testimony.

Derek Bacigal
Kaimuki, HI 96816

Testimony
Attachment
Accept Terms
and Agreement 1

IP: 192.168.200.67

Testimony in **Support** of Bill 25 "Relating to the Adoption of the State Energy Conservation Code" .

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

Bill 25 is long overdue. The planet is in a climate crisis right now and what are we doing about it in our state? It is our responsibility to take immediate action to reduce carbon particles in our atmosphere. This means we have to get off of fossil fuels and decrease our dependency on non-renewables now. July 2019 was the hottest July on record for Hawaii and records for heat were shattered across the nation. This is serious, scary factual data and the impacts cannot be ignored in order to save obsolete, polluting energy solutions and jobs. There will be plenty of jobs in the field of clean energy and this is the future.

Bill 25 is a comprehensive measure that will be the beginning of steps that need to be taken to help Oahu significantly reduce greenhouse gas emissions from new homes and buildings, but more needs to be done. Our island is totally unprepared to transition to electric vehicles. The lack of EV charging stations currently in residences and parking structures is problematic already. Bill 25 would be a step toward remedying that problem. Old parking structures for residences and businesses often don't have any charging stations and this is discouraging people from buying electrical cars.

It is absolutely necessary to require that new commercial buildings and multi-family developments have the wiring, conduit, and electrical capacity for charging stations to be installed later as this Bill requires. But, it would make more sense to require installation of EV charging stations in these buildings at the time of construction and at least 75% of the stalls should have them. In addition to solar water heaters and efficiency heat pump water heaters, homes should also be required to have solar panels or solar roof tiles.

Global warming is creating a dire situation and we aren't doing enough. Bill 25 would be a step in the right direction. Please support Bill 25 and all efforts in our state to help reverse global warming.

Aloha,
Beth Anderson
Kailua

From: CLK Council Info
Sent: Tuesday, August 20, 2019 5:46 PM
Subject: Council/Public Hearing Speaker Registration/Testimony

Speaker Registration/Testimony

Name	Patricia Blair
Phone	8088886393
Email	patriciablair@msn.com
Meeting Date	08-22-2019
Council/PH Committee	Council
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	I support modernizing Honolulu Building Energy Code
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Honolulu City Council
Zoning, Planning and Housing Committee
Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

Written
Testimony

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Alexandra Kahn, Honolulu, HI 96813

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Jalem Correia
Phone	8083926458
Email	jalem.correia@gmail.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Organization
Organization	Sierra Club Oahu
Do you wish to speak at the hearing?	No
Written Testimony	
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67



HAWAII REGIONAL COUNCIL OF CARPENTERS

Committee on Zoning, Planning, and Housing
 The Honorable Ron Menor, Chair
 The Honorable Tommy Waters, Vice Chair
 530 South King Street, Room 200
 Honolulu, Hawaii 96813

Thursday, August 22, 2019

Statement of the Hawaii Regional Council of Carpenters – Strong Concerns on Bill 25

Dear Chair Menor, Vice Chair Waters, and Members:

The Hawaii Regional Council of Carpenters would like to express strong concerns about Bill 25, relating to the adoption of the State Energy Conservation Code.

We have long been a strong supporter of finding ways for our state to reach its ambitious goal of achieving 100 percent clean energy generation by 2045. We are particularly supportive of this goal because our members and their families are ratepayers subject to Hawaii's high energy costs, and because the construction industry is collectively one of the largest users of energy in the state. As such, we appreciate the City's intent to adopt the State Energy Conservation Code (2017) with locally-appropriate amendments.

At the same time, we have also been working diligently with stakeholders throughout the community to address our state's housing crisis – both to increase the supply of housing overall and to reduce the cost per unit, so more Hawaii families can find a place to call home.

We are concerned that certain local amendments proposed in Bill 25 would result in increased costs to provide housing in both large housing developments and when families undertake renovations on their existing homes. We are further concerned that many of these provisions, while well-intentioned, may not actually result in lower energy use or increased efficiency in a breezy tropical climate such as ours.

We encourage the City Council to proceed slowly on adopting the State Energy Conservation Code and carefully consider the overall impact of any local amendments from both an energy-saving and cost perspective. We also encourage the Council, as part of deliberating on the code and its local amendments, to engage a broad range of stakeholders to ensure that the final code truly achieves energy efficiency while maintaining cost effectiveness for local residents.

Thank you for the opportunity to express our strong concerns about Bill 25, relating to the adoption of the State Energy Conservation Code.

STATE HEADQUARTERS & BUSINESS OFFICES

OAHU: 1311 Houghtaling Street, Honolulu Hawaii 96817-2712 • Ph. (808) 847-5761 Fax (808) 440-9188
 HILO OFFICE: 525 Kilauea Avenue, Room 205, Hilo, Hawaii 96720-3050 • Ph. (808) 935-8575 Fax (808) 935-8576
 KONA OFFICE: 75-126 Lunnipule Road, Kailua-Kona, Hawaii 96740-2106 • Ph. (808) 329-7355 Fax (808) 326-9376
 MAUI OFFICE: 330 Hookahi Street, Wailuku, Maui 96793-1449 • Ph. (808) 242-6891 Fax (808) 242-5961
 KAUAI OFFICE: Kuhio Medical Ctr Bldg., 3-3295 Kuhio Hwy, Suite 201, Lihue, Kauai 96766-1040 • Ph. (808) 245-8511 Fax (808) 245-8911



August 22, 2019

Honorable Ron Menor, Chair
Honorable Tommy Waters, Vice-Chair
Honolulu City Council Committee on Zoning & Housing
Honolulu Hale
Honolulu, Hawaii 96813-3077

RE: Bill No. 25 - Relating to The Adoption of the State Energy Conservation Code

Chair Menor, Vice-Chair Waters, and members of the Committee:

My name is Gladys Quinto-Marrone, CEO of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii. Our members build the communities we all call home.

BIA-Hawaii is in opposition to Bill 25. We have strong concerns with regards to the proposed State Energy Conservation Code (SECC), and how it will impact housing affordability in Hawaii. As you all are well aware, Hawaii has the distinction of being one of the most expensive housing markets in the nation. Constricted supply and high demand have resulted in median prices of homes on Oahu currently reaching a new record of \$835,000. Increasing the supply of housing at all price points, and minimizing the cost of housing construction while not compromising public health or safety, has been the focus of BIA-Hawaii over the last few years.

The State Energy Conservation Code (SECC) are not codes that deal with the protection of public health and safety. Rather, these codes are intended to save on energy consumption. While we support the need for energy conservation, there needs to be a common sense and economic assessment of the cost of compliance with these codes. Mandating compliance with these codes as is being proposed in Bill No. 25 would be irresponsible, without first recognizing the impact on housing affordability on Oahu.

The proposed amendments to the State Energy Conservation Code are difficult to understand as it involves the following:

- Review of the 2015 International Energy Conservation Code;
- The state's amendments to the 2015 International Energy Conservation Code, which were adopted as the State Energy Conservation Code in March of 2017;
- The proposed amendments to the State Energy Conservation Code (March 2017) proposed by the State Building Code Council and the Department of Planning and Permitting as Bill No. 25.

The 2015 International Energy Conservation Code has two parts: commercial and residential. Our comments are on the proposed amendments to the residential section of the code.

An itemized listing of the proposed amendments to the State Energy Conservation Code is provided in attached Exhibit A.

Tropical Zone Code and Jalousie Windows:

Bill 25 Proposed Amendments:

Page 10, (24) (25) Proposed Revisions-- R401 .2.1 Tropical zone. Residential buildings in the tropical zone at elevations below 2,400 feet (731.5 m) above sea level must comply with this chapter by satisfying the following conditions:

1. Not more than one-half of the area of the dwelling unit is air conditioned.
2. The dwelling unit is not heated.
3. Solar, wind or another renewable energy source supplies not less than 90 percent of the energy for service water heating.
4. Glazing in conditioned space shall have a maximum solar heat gain coefficient as specified in Table R402.2.1.

Table R402.2.1. Window SHGC Requirements

Projection Factor of overhang from base of average window sill	SHGC
< 0.30	0.25
0.30 - 0.50	0.40
≥ 0.50	N/A

Exception: North-facing windows with pf > 0.20 are exempt from the SHGC requirement. Overhangs shall extend two feet on each side of window or to nearest wall, whichever is less.

5. Skylights in dwelling units shall have a maximum Thermal Transmittance (U-factor), as specified in Table R402.1.2.
6. Permanently installed lighting is in accordance with Section R404.
7. The roof/ceiling complies with one of the following options:
 - a. Comply with one of the roof surface options in Table C402.3 and install R-13 insulation or greater;
 - or b. Install R-19 insulation or greater.
- If present, attics above the insulation are vented and attics below the insulation are unvented.
- Exception: The roof/ceiling assembly are permitted to comply with Section R407.
8. Roof surfaces have a minimum slope of one fourth inch per foot of run. The finished roof does not have water accumulation areas.
9. Operable fenestration provides ventilation area equal to not less than 14 percent of the floor area in each room. Alternatively, equivalent ventilation is provided by a ventilation fan.

10. Bedrooms with exterior walls facing two different direction have operable fenestration or exterior walls facing two different directions.

11. Interior doors to bedrooms are capable of being secured in the open position.

12. Ceiling fans or whole house fans are provided for bedrooms and the largest space that is not used as bedroom.

13. Jalousie windows shall have an air infiltration rate of no more than 1.2 cfm per square foot (6.1 L/s/m²).

14. Walls, floors and ceilings separating air conditioned spaces from non-air conditioned spaces shall be constructed to limit air leakage in accordance with the requirements in Table R402.4.1.1.

BIA Comments and Recommendations on this Section:

While Hawaii falls under the Tropical Zone of the International Energy Conservation Code (IECC), sections of the existing State Energy Conservation Code (SECC) and some of the proposed amendments contained in Bill No. 25 will increase the cost of construction or remodeling a home on Oahu. Thus making housing less affordable to more local residents and families.

For example, the Tropical Zone requires a Solar Heat Gain Coefficient (SHGC) or Efficiency of windows of .25. The SHGC is expressed as a number between 0 and 1. The lower a window's solar heat gain coefficient, the less solar heat it transmits. Essentially keeping the house cooler. However, in adopting a SHGC of .25, the City and County of Honolulu will essentially eliminate Louver Jalousie Window Systems as an option for homeowners and developers.

Monolithic glass or glass used in louver jalousie window systems, unlike insulated glass (two pieces of glass, air space in the middle, inner pane coated), performs poorly in SHGC performance. The technology to improve the SHGC performance with single pane, monolithic glass to be comparable with insulated glass is not available.

The minimum air leakage of 1.2cfm per square foot for louver jalousie windows is not reasonable nor justified for a passive, naturally ventilated dwelling under the tropical code. The mere design of the louver jalousie window with thick glass blades overlapping a on the adjacent glass blades, providing glass on glass contact is very difficult. Dirt, debris on the glass blades, settling of the dwelling, can all result in out-of-plumb/square openings that will prevent the glass blades from closing properly to comply with the 1.2 cfm per square foot leakage requirement.

The louver/jalousie window was designed and built to provide maximum ventilation within the window opening. There is no surrounding frame around the glass with weather seals to provide an air tight seal when closed like sliding, hung, casement, awning window.

As such, we recommend that Bill No. 25 proposed condition No. 13 be amended to read as follows:

13. Jalousie windows are allowed in the Tropical Zone, and are exempt from the Window SHGH & Air Infiltration Rate Requirements stated in the Tropical Zone.



Solar Water Heater Mandate:

Bill 25 Proposed Amendments:

Page 13, (28) New Section--R403.5.5 Solar water heating. Residential single-family buildings shall use solar, wind or another renewable energy source for not less than 90 percent of the energy for service water heating.

Exception: If an architect or mechanical engineer licensed under Chapter 464, of the HRS, attests and demonstrates that installation is impracticable due to poor solar resource or installation is cost-prohibitive based upon a life cycle cost-benefit analysis that incorporates the average residential utility bill and the cost of the new solar water heater system with a life cycle that does not exceed fifteen years, then one of the following technologies advancing renewable energy shall be used for service water heating: 1) a grid-interactive water heater; 2) a heat pump water heater; or 3) a gas-powered water heater that is fueled by a source that is not less than 90 percent renewable. For the purpose of this section, "grid-interactive water heater" means an electric resistance water heater fitted with grid-integrated controls that are capable of participating in an electric utility load control or demand response program.

BIA Comments and Recommendations on this Section:

The proposed amendment effectively eliminates instant gas water heaters, which are an efficient and reliable means of heating water. The cost difference between instant gas water heating vs. solar water heating is approximately \$10,000 per home. This cost will be passed on to the home buyer. Furthermore, all solar water systems have an electric back-up heating element. This means that HECO has to size their generation and distribution systems to accommodate this load. Eliminating gas heaters also reduces the incentive for developers to offer gas ranges and other appliances, meaning that these additional loads will have to be accounted for as well.

We suggest that this section be amended to read as follows:

Page 13, (28) New Section--R403.5.5 Solar water heating. Residential single-family buildings ~~shall~~ are encouraged to use solar, wind or another renewable energy source for not less than 90 percent of the energy for service water heating; however, gas water heaters may also be used.

Exception: If an architect or mechanical engineer licensed under Chapter 464, of the HRS, attests and demonstrates that installation is impracticable due to poor solar resource or installation is cost-prohibitive based upon a life cycle cost-benefit analysis that incorporates the average residential utility bill and the cost of the new solar water heater system with a life cycle that does not exceed fifteen years, then one of the following technologies advancing renewable energy shall be used for service water heating: 1) a grid-interactive water heater; 2) a heat pump water heater; or 3) a gas-powered water heater that is fueled by a source that is not less than 90 percent renewable. For the purpose of this section, "grid-interactive water heater" means an electric resistance water heater fitted with grid-integrated controls that are capable of participating in an electric utility load control or demand response program.

Mandatory Ceiling Fans:

With respect to Page 13, (29) New Section--R403.6.2 Ceiling fans (Mandatory). A ceiling fan or whole house fan is provided for bedrooms and the largest space that is not used as bedroom.



We would strongly suggest the Council adopt the language approved by the County of Kauai which reads as follows:

Kauai County Amendment:

"A ceiling fan or ceiling fan rough-in [is] or whole-house fan may be provided for bedrooms and the largest space that is not used as a bedroom."

Mandate for Electric Vehicle Charging Capability:

Bill 25 Proposed Amendments (EV Charging Language currently not in IECC or SECC:
Page 13, (31) New Section--R404.3 Electric Vehicle Capability. In addition to what is required by the Electrical Code, a dedicated receptacle for an electrical vehicle must be provided for each residence which provides at a minimum, Level 1 service.

BIA Comments and Recommendations on this Section:

Most affordable housing projects particularly at the lowest end are multi-family. The proposed amendment requires 25% of multi-family at grade parking areas to be "electric vehicle ready". In addition to the cost of \$11,300 per EV-ready stall, this amendment creates a host of other problems.

The 25% requirement seems to be unreasonable considering the current electric vehicle ownership is less than 1% in the entire state (August 9, 2019 Star Advertiser). For multi-family projects, the infrastructure cost (i.e. trenching, conduits, and transformer upgrades) are significant and will be passed on to the homeowner in the cost of the unit.

Parking stalls are conveyed with units. Buyers who want EV-ready stalls may not get them, and buyers who don't want them may have to pay a premium for equipment that they will not use. The stalls will pull power from the unit's panel, so it is permanently attached to the unit. It's already a struggle to meet the minimum parking requirements, so providing extra stalls is out of the question. EV-ready stalls may be ganged in the center of the project, but that leads to other problems, as they will have to be individually metered. That would represent another extra cost to the homebuyer.

Common areas usually benefit all of the residents in the project. EV parking stalls are not considered common areas, and would only benefit those residents who have an electric vehicle. As such, costs associated with construction, installation and upkeep of these EV-ready parking stalls should not be a Common Area Maintenance (CAM) charged to everyone.

If power is pulled from a common circuit, sub meters can be used, however, they will add more cost, and the AOA will have to read them, billing each homeowner accordingly. Also, these stalls may be far away from the owner's units. The chargers will also need security to prevent unauthorized usage while the homeowner is not using it. Finally, the chargers will most likely be used during peak electric usage hours. The homeowner will come home, plug in their car, turn on their air conditioning, lights, TVs, and start cooking using their electric ranges and ovens. Meanwhile, all the common area lights and streetlights will turn on. The transformers and lines within the development will all have to be upsized to accommodate these loads; costs which also get passed on to the home buyer.

We strongly recommend that multi-family projects with grouped, at-grade parking stalls be excluded from the requirement to provide 25% of multi-family parking be "electric vehicle ready." As such we proposed the following amendment to this section:

Bill 25 Proposed Amendments, Page 13, (31) New Section--*R404.3 Electric Vehicle Capability. In addition to what is required by the Electrical Code, a dedicated receptacle for an electrical vehicle must be provided for each single family residence which provides at a minimum, Level 1 service. Multi-family and workforce/affordable housing projects (i.e. those priced at 140% and below AMI) are exempt from this provision.*

Summary:

The proposed code changes also increase costs in other areas. Homes will have to be built air tight and blower door tested, new ventilation requirements will require additional fans, changes to the window solar heat gain coefficients increase the cost of windows, additional insulation over steel framing adds material and labor cost.

As Bill No. 25 is being heard, we ask that the Council consider the following as it reviews each proposed amendment:

1. Is the proposed Code something that government would "like" to have or "need" to have?
2. How would the adoption of the proposed code amendments impact housing affordability on Oahu?

The Council is in a position to improve housing affordability by eliminating or suspending code mandates and requirements that do not compromise public health and safety. Adding these unnecessary and costly requirements impacts housing affordability and will prevent more and more Oahu residents from obtaining housing they can afford.

We support energy conservation, and can support adoption of the SECC, **provided** it includes our proposed amendments. We appreciate the opportunity to express our views regarding this matter.



EXHIBIT A

Existing language from International Energy Conservation Code:

R401.2 Compliance. Projects shall comply with one of the following:

- a. Sections R401 through R404.
- b. Section R405 and the provisions of Sections R401 through R404 labeled "Mandatory."
- c. An energy rating index (ERI) approach in Section R406.

Bill 25 Proposed Amendments:

R401 .2 Compliance. Projects shall comply with one of the following:

4. The Tropical Zone requirements in Section R401.2.1.

Existing language from International Energy Conservation Code:

R401.2.1 Tropical zone. Residential buildings in the tropical zone at elevations below 2,400 feet (731.5 m) above sea level shall be deemed to comply with this chapter where the following conditions are met:

1. Not more than one-half of the occupied space is air conditioned.
2. The occupied space is not heated.
3. Solar, wind or other renewable energy source supplies not less than 80 percent of the energy for service water heating.
4. Glazing in conditioned space has a solar heat gain coefficient of less than or equal to 0.40, or has an overhang with a projection factor equal to or greater than 0.30.
5. Permanently installed lighting is in accordance with Section R404.
6. The exterior roof surface complies with one of the options in Table C402.3 or the roof/ceiling has insulation with an R-value of R-15 or greater. If present, attics above the insulation are vented and attics below the insulation are unvented.
7. Roof surfaces have a minimum slope of 1/4 inch per foot of run. The finished roof does not have water accumulation areas.
8. Operable fenestration provides ventilation area equal to not less than 14 percent of the floor area in each room. Alternatively, equivalent ventilation is provided by a ventilation fan.
9. Bedrooms with exterior walls facing two different directions have operable fenestration or exterior walls facing two directions.

10. Interior doors to bedrooms are capable of being secured in the open position.
11. A ceiling fan or ceiling fan rough-in is provided for bedrooms and the largest space that is not used as a bedroom.

Existing language in State Energy Conservation Code:

R401.2.1 Tropical zone. Residential buildings in the tropical Zone at elevations below 2,400 feet (731.5 m) above sea level shall be deemed to comply with this chapter where the following conditions are met:

1. Not more than one-half of the dwelling unit is air conditioned
2. The dwelling unit is not heated.
3. Solar, wind or other renewable energy source supplies not less than 90 percent of the energy for service water heating.
4. Glazing in dwelling units shall have a maximum solar heat gain coefficient as specified in Table R402.2.1.

Table R402.2.1. Window SHGC Requirements

Projection Factor of overhang from base of average window sill ^b	SHGC
< .30	.25
.30 - .50	.40
≥ .50	N/A

^bException: North-facing windows with pf > .20 are exempt from the SHGC requirement. Overhangs shall extend 2 feet on each side of window or to nearest wall, whichever is less.

5. Skylights in dwelling units shall have a maximum U-factor as specified in Table R402.1.2.
 6. Permanently installed lighting is in accordance with Section R404.
 7. The roof/ceiling complies with one of the following Options:
 - Comply with one of the roof surface options in Table C402.3 and install R-13 insulation or greater.
 - Install R-19 insulation or greater.
- If present, attics above the insulation are vented and attics below the insulation are unvented.
- Exception: The roof/ceiling assembly are permitted to comply with Section R407.
8. Roof surfaces have a minimum slope of ¼ inch per foot of run. The finished roof does not have water accumulation areas.
 9. Operable fenestration provides ventilation area equal to not less than 14 percent of the floor area in each room. Alternatively, equivalent ventilation is provided by a ventilation fan.

10. Bedrooms with exterior walls facing two different direction have operable fenestration or exterior walls facing two different directions.
11. Interior doors to bedrooms are capable of being secured in the open position.
12. A ceiling fan or ceiling fan rough-in is provided for bedrooms and the largest space that is not used as bedroom.
13. Jalousie windows shall have an air infiltration rate of no more than 1.2 cfm per square foot (6.1 L/s/m²).
14. Walls, floors and ceilings separating air conditioned spaces from non-air conditioned spaces shall be constructed to limit air leakage in accordance with the requirements in Table R402. 4.1.1.

Bill 25 Proposed Amendments:

Page 10, (24) (25) Proposed Revisions-- R401 .2.1 Tropical zone. Residential buildings in the tropical zone at elevations below 2,400 feet (731.5 m) above sea level must comply with this chapter by satisfying the following conditions:

1. Not more than one-half of the area of the dwelling unit is air conditioned.
2. The dwelling unit is not heated.
3. Solar, wind or another renewable energy source supplies not less than 90 percent of the energy for service water heating.
4. Glazing in conditioned space shall have a maximum solar heat gain coefficient as specified in Table R402.2.1.

Table R402.2.1. Window SHGC Requirements

Projection Factor of overhang from base of average window sill	SHGC
< 0.30	0.25
0.30 - 0.50	0.40
≥ 0.50	N/A

Exception: North-facing windows with pf > 0.20 are exempt from the SHGC requirement. Overhangs shall extend two feet on each side of window or to nearest wall, whichever is less.

5. Skylights in dwelling units shall have a maximum Thermal Transmittance (U-factor), as specified in Table R402.1.2.
 6. Permanently installed lighting is in accordance with Section R404.
 7. The roof/ceiling complies with one of the following options:
 - a. Comply with one of the roof surface options in Table C402.3 and install R-13 insulation or greater;
 - or b. Install R-19 insulation or greater.
- If present, attics above the insulation are vented and attics below the insulation are unvented.



Exception: The roof/ceiling assembly are permitted to comply with Section R407.

8. Roof surfaces have a minimum slope of one fourth inch per foot of run. The finished roof does not have water accumulation areas.

9. Operable fenestration provides ventilation area equal to not less than 14 percent of the floor area in each room. Alternatively, equivalent ventilation is provided by a ventilation fan.

10. Bedrooms with exterior walls facing two different direction have operable fenestration or exterior walls facing two different directions.

11. Interior doors to bedrooms are capable of being secured in the open position.

12. Ceiling fans or whole house fans are provided for bedrooms and the largest space that is not used as bedroom.

13. Jalousie windows shall have an air infiltration rate of no more than 1.2 cfm per square foot (6.1 L/s/m²).

14. Walls, floors and ceilings separating air conditioned spaces from non-air conditioned spaces shall be constructed to limit air leakage in accordance with the requirements in Table R402.4.1.1.

Existing language from International Energy Conservation Code:

R402.3.2 Glazed fenestration SHGC. An area-weighted average of fenestration products more than 50-percent glazed shall be permitted to satisfy the SHGC requirements. Dynamic glazing shall be permitted to satisfy the SHGC requirements of Table R402.1.2 provided the ratio of the higher to lower labeled SHGC is greater than or equal to 2.4, and the dynamic glazing is automatically controlled to modulate the amount of solar gain into the space in multiple steps. Dynamic glazing shall be considered separately from other fenestration, and area-weighted averaging with other fenestration that is not dynamic glazing shall not be permitted.

Exception: Dynamic glazing is not required to comply with this section when both the lower and higher labeled SHGC already comply with the requirements of Table R402.1.1.

Existing language in State Energy Conservation Code:

R402.3.2 Glazed fenestration SHGC. Fenestration shall have a maximum solar heat gain coefficient as specified in Table R402.1.2. An area-weighted average of fenestration products more than 50-percent glazed shall be permitted to satisfy the SHGC requirements.

Dynamic glazing shall be permitted to satisfy the SHGC requirements of Table R402.1.2 provided the ratio of the higher to lower labeled SHGC is greater than the or equal to 2.4 and the dynamic glazing is automatically controlled to modulate the amount of solar gain into the space in multiple steps.

Dynamic glazing shall be considered separately from other fenestration, and area weighted averaging with other fenestration that is not dynamic glazing shall not be permitted.

Exception: Dynamic glazing is not required to comply with this section when both the lower and higher labeled SHGC already comply with the requirements of Table R402.1.1.

Bill 25 Proposed Amendments:

R402.3.2 Glazed fenestration SHGC. Fenestration shall have a maximum solar heat gain coefficient as specified in Table R402.1.2. An area-weighted average of fenestration products more than 50 percent glazed shall be permitted to satisfy the SHGC requirements.



Exception: Dynamic glazing is not required to comply with this section when both the lower and higher labeled SHGC already comply with the requirements of Table R402.1.2.

Existing language in State Energy Conservation Code:

Section R403.5.5 Solar water heating. Solar water heating systems are required for new single-family residential construction pursuant to section 196-6.5, HRS.

Bill 25 Proposed Amendments:

Page 13, (28) New Section--R403.5.5 Solar water heating. Residential single-family buildings shall use solar, wind or another renewable energy source for not less than 90 percent of the energy for service water heating.

Exception: If an architect or mechanical engineer licensed under Chapter 464, of the HRS, attests and demonstrates that installation is impracticable due to poor solar resource or installation is cost-prohibitive based upon a life cycle cost-benefit analysis that incorporates the average residential utility bill and the cost of the new solar water heater system with a life cycle that does not exceed fifteen years, then one of the following technologies advancing renewable energy shall be used for service water heating: 1) a grid-interactive water heater; 2) a heat pump water heater; or 3) a gas-powered water heater that is fueled by a source that is not less than 90 percent renewable. For the purpose of this section, "grid-interactive water heater" means an electric resistance water heater fitted with grid-integrated controls that are capable of participating in an electric utility load control or demand response program.

Existing language in State Energy Conservation Code:

R403.6 Mechanical ventilation (Mandatory). The building shall be provided with ventilation that meets the requirements of the International Residential Code or International Mechanical Code, as applicable, or with other approved means of ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.

R403.6.1 Whole-house mechanical ventilation system fan efficacy. Mechanical ventilation system fans shall meet the efficacy requirements of Table R403.6.1.

Exception: Where mechanical ventilation fans are integral to tested and listed HVAC equipment, they shall be powered by an electronically commutated motor.

Bill 25 Proposed Amendments:

Page 13, (29) New Section--R403.6.2 Ceiling fans (Mandatory). A ceiling fan or whole house fan is provided for bedrooms and the largest space that is not used as bedroom.

Existing language in State Energy Conservation Code:

R404.2 Ceiling fans (mandatory). A ceiling fan or ceiling fan rough-in is provided for bedrooms and the largest space that is not used as bedroom.

Bill 25 Proposed Amendments:

Page 13, (30) New Section--R404.2 Ceiling fans (Mandatory). A ceiling fan or whole-house fan is provided for bedrooms, provided the whole house mechanical ventilation system complies with the efficacy requirements of Table R403.6.1.

Bill 25 Proposed Amendments (EV Charging Language currently not in IECC or SECC:

Page 13, (31) New Section--R404.3 Electric Vehicle Capability. In addition to what is required by the Electrical Code, a dedicated receptacle for an electrical vehicle must be provided for each residence which provides at a minimum, Level 1 service.

Existing language from International Energy Conservation Code:

R503.1.1 Building envelope. Building envelope assemblies that are part of the alteration shall comply with Section R402.1.2 or R402.1.4, Sections R402.2.1 through R402.2.12, R402.3.1, R402.3.2, R402.4.3 and R402.4.4.

Exception: The following alterations need not comply with the requirements for new construction provided the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.
3. Construction where the existing roof, wall or floor cavity is not exposed.
4. Roof recover.
5. ~~Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.~~

Existing Amendment in the State Energy Conservation Code:

5. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during a roof replacement shall meet one of the following:

- R-30 cavity insulation or the cool roof requirements in Section C402.3 for residential buildings.
- R-19 cavity insulation or the cool roof requirements in Section C402.3 for Tropical Zone residentza2 buildings."

6. Surface-applied window film installed on existing single pane fenestration assemblies to reduce solar heat gain provided the code does not require the glazing or fenestration assembly to be replaced.

Bill 25 Proposed amendment:

7. When uninsulated roof sheathing is exposed during alteration, a minimum of two of the following shall be installed:

- a. Energy Star compliant roof covering;
- b. Radiant barrier;
- c. Attic ventilation via solar attic fans or ridge ventilation or gable ventilation; or
- d. A minimum of two exceptions listed in C402.3.

Footnote: Shake roofs on battens shall be replaced with materials that result in equal or improved energy efficiency.

**Testimony before the Committee on Zoning, Planning and Housing
City and County of Honolulu**

Written Testimony in Support

**Bill 25 (2019), Proposed CD1
Relating to the Adoption of the State Energy Conservation Code**

**By Michael Colón
Manager, Electrification of Transportation Department
Hawaiian Electric Company, Inc.
and
Carlos Perez Loriga
Director, Customer Solutions
Hawaiian Electric Company, Inc.**

**August 22, 2019
9:00 a.m.
City Council Committee Room**

Chair Menor, Vice Chair Waters, and Members of the Committee,

Hawaiian Electric Company, Inc. ("Hawaiian Electric") is writing in support of Bill 25 (2019), Proposed CD1 which is proposing to adopt the State Energy Conservation Code with county amendments to regulate the design and construction of residential and commercial buildings. Hawaiian Electric Company supports Bill 25 (2019), Proposed CD1: (1) Subsection R403.5.5 which would allow certain exceptions to the requirement that residential single-family buildings use solar, wind or another renewable energy source for not less than 90 percent of the energy for service water heating; and (2) Subsection C406.8 relating to Electric vehicle infrastructure, which seeks to integrate clean transportation planning with large residential and commercial development, by requiring a portion of available parking stalls be electric vehicle (EV) charger ready. These two provisions are working toward a cleaner renewable future for Honolulu and the State of Hawaii.



In Subsection R403.5.5 Solar Water Heating -- this bill is proposing to provide an exception if the installation of a solar water heater proves to be impractical due to poor solar resource or is cost-prohibitive based upon a life cycle cost-benefit analysis. Furthermore, the exception allows for the use of other technologies that advance renewable energy for service water heaters; in particular, the exception offers the option to use grid-interactive water heaters fitted with controls that would also enable customers to participate in Hawaiian Electric Company's demand response programs while helping the State achieve its renewable goals. As water heaters are one of the highest energy consuming appliances, the ability to control such load through Demand Response will create an opportunity for customers to directly participate in the reliability of our grid while enabling greater renewable energy integration in the State. For these reasons, Hawaiian Electric supports the proposed language in Subsection R403.5.5.

In addition, Hawaiian Electric Company supports Subsection C406.8 Electric vehicle infrastructure -- this subsection proposes Electric Vehicle infrastructure for new residential multi-unit buildings and new commercial buildings meeting certain criteria, commonly known as EV charger readiness. This bill has the potential to make a big impact on the availability of EV charging infrastructure, particularly in areas of high population density. These areas are typically ideal locations for EVs in that residents typically have shorter driving distances than those living in less dense, but more distant locations from the city center. Existing commercial locations and multi-family buildings face expensive retrofits to their parking facilities to be EV ready. However, by making a proactive requirement to plan for and incorporate EV charging into future large building projects, the costs will be lower.



Providing increased access to EV charging at workplaces, commercial locations and multi-family buildings are all key priorities identified in the Companies' Electrification of Transportation Strategic Roadmap. These provisions related to EV charging will continue the tremendous progress that the state has made towards a cleaner and more sustainable transportation future.

Accordingly, the Hawaiian Electric Company support Bill 25 (2019), Proposed CD1. Thank you for this opportunity to testify.



From: CLK Council Info
Sent: Wednesday, August 21, 2019 11:58 AM
Subject: Council/Public Hearing Speaker Registration/Testimony

Speaker Registration/Testimony

Name	Steffen P Salvador
Phone	8082250886
Email	ssalvador@hawaiigas.com
Meeting Date	08-22-2019
Council/PH Committee	Council
Agenda Item	bill 25
Your position on the matter	Oppose
Representing	Organization
Organization	hawaii gas
Do you wish to speak at the hearing?	No
Written Testimony	should be the home owners choice
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Jolyn Okimoto Rosa
 Phone 8087230280
 Email jokimoto@stanfordalumni.org
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Written Testimony

I am writing in support of Bill 25. As someone who was born and raised in Hawaii, I have seen in my lifetime the changes in our shoreline and weather. We all share the responsibility to do what we can in terms of clean energy -- and Bill 25 lays out some ways:

First, to update the existing building efficiency code with new energy-saving measures, such as better insulation, improved lighting, and smarter controls for new construction.

Second, to ensure all new homes come equipped with either a solar water heater, a high-efficiency heat pump water heater, or a "smart" grid-interactive water heater (that will allow us to use more renewable energy on the power grid).

Third, require new commercial and multi-family development above a certain size be "electric vehicle-ready" in at least 25% of the parking stalls.

Thank you for your time.

Testimony Attachment

Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Milton Anderson
Phone	808-371-5736
Email	miltona531@yahoo.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	5
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	Level 2 EV chargers are more desirable and practical!
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Chris Barzman
 Phone 6199175925
 Email chrisbarzman@yahoo.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you

to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Chris Barzman
Makiki

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

From: CLK Council Info
Sent: Wednesday, August 21, 2019 9:59 AM
Subject: Public Infrastructure, Technology and Sustainability Speaker Registration/testimony

Speaker Registration/Testimony

Name Tony Fink
Phone 8082601519
Email fink.tony@gmail.com
Meeting Date 08-22-2019
Council/PH Committee PITS
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation.

This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Testimony

Attachment

Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Patrick Grady
 Phone 6192011562
 Email patgrady@hotmail.com
 Meeting Date 08-22-2019
 Council/PH Zoning
 Committee
 Agenda Item Bill 25
 Your position Support
 on the matter
 Representing Self
 Organization
 Do you wish
 to speak at the No
 hearing?

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make

electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Patrick Grady, Haleiwa, North Shore, Oahu

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Jane Stites
 Phone 6507048455
 Email jane.k.stites@gmail.com
 Meeting Date 08-22-2019
 Council/PH Zoning
 Committee
 Agenda Item Bill 25
 Your position Support
 on the matter
 Representing Self
 Organization
 Do you wish
 to speak at the No
 hearing?

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make

electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Jane Stites, Kailua

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name janice palma-glennie
 Phone 8083240092
 Email palmtree7@hawaiiantel.net
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha committee members,

I strongly support BILL 25 as it will help our climate and clean energy future. Here are some of the reasons I support it:

1. It updates the existing building efficiency code—which is over thirteen years out of date—with new energy saving measures, such as better insulation, improved lighting, and smarter controls for new residential and commercial construction. This alone is estimated to save nearly \$1 billion in energy costs for O‘ahu over the next 20 years.
2. It ensures that all new homes will come equipped with either a solar water heater, a high-efficiency heat pump water heater, or a “smart” grid-interactive water heater (that will allow us to use more renewable energy on the power grid). It also provides options for those that live in low-sun zones or find that SWH are not cost effective. Important distinction since opposition focused on the lack of choice to consumers.
3. It requires that new commercial and multi-family development, above a certain size, be “electric vehicle-ready” (having the wiring, conduit, and electrical capacity for charging stations to be installed later) in at least 25% of the parking stalls. Studies have shown that installing EV infrastructure at the time of construction can be 91% less expensive than post-construction retrofits.

Written
Testimony

These significant, cost-effective changes that will help to dramatically reduce the greenhouse gas emissions from our new homes and buildings will also help set a trend for the rest of the state.

I also ask that the EV-ready provision of Bill 25 be amended to require capacity for Level 2 charging for new multi-family residential buildings and that 100% of new parking stalls should be EV-ready.

Mahalo for supporting this sensible legislation.

sincerely,
Janice palma-glennie
Kailua-Kona

Testimony

Attachment

Accept Terms
and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name John Witeck
Phone 8083473306
Email jwiteck@yahoo.com
Meeting Date 08-22-2019
Council/PH
Committee Zoning
Agenda Item Council Bill 25
Your position on
the matter Support
Representing Self
Organization
Do you wish to
speak at the
hearing? No

Written Testimony This is an important measure for securing clean energy and lessening the destructive impacts on our planet of present-day energy use in our buildings. Please also amend the Ev-ready provision to require capacity for Level 2 charging for multi-family residences.

Testimony
Attachment

Accept Terms and
Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Colleen Soares
 Phone 8087489215
 Email csoares48@gmail.com
 Meeting Date 08-22-2019
 Council/PH Zoning
 Committee
 Agenda Item Bill 25
 Your position Support
 on the matter
 Representing Self
 Organization
 Do you wish
 to speak at the No
 hearing?

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make

electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Dr. Colleen Soares
Self and Sierra Club

Testimony
Attachment
Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Soo San Schake
 Phone 8089899398
 Email soosanschake@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Written Testimony

Aloha Chair Menor and other members of the committee,
 I strongly support this bill because it will update Honolulu's building energy code which is 13 years out of date. This bill helps to ensure a cleaner, greener future for our city as well as helps to propel us towards renewable energy. Hawai'i is currently the most fossil fuel dependent state in the nation. Importing petroleum for most of our energy needs is both expensive and unsustainable. Moving towards cleaner energy alternatives is not only better for our environment, but will boost our economy and be more cost effective for residents.

I also support this bill because requires more EV ready parking stalls. I personally drive an EV and know the importance of when moving into a new place having the availability to set up the charge station for it. Having these set ups will encourage more Honolulu residents to switch to EV's which will also help cut down on their cost of living. Please pass Bill 25 to move Hawai'i towards clean energy and help preserve the beauty of our islands for generations to come.

Testimony Attachment

Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Matt L
 Phone 8089490003
 Email mattcalling@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you

to think urgently about climate change and our collective future when voting.

Finally, there are so many ways to be energy efficient that are not cost prohibitive. Do your homework. You work for the betterment of the people, City and especially our future.

Mahalo for considering my testimony in support of Bill 25.

Testimony
Attachment

Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Christine Pereira
 Phone 7146101864
 Email christine.pereira83@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the No hearing?

Dear Chair Ron Menor and Committee members:

I am testifying in strong support for Bill 25 (2019).

As a resident of Waikiki, I appreciate the City's commitment to making our communities more energy efficient, reducing our reliance on fossil fuels, promoting climate change equity and, overall, sustainable development planning to make our island-community more resilient. We need to normalize climate adaptation into everyday life, especially if we are committed to meeting the City Council's Resolution 18-221 of reaching carbon neutrality and 100% clean energy by 2045.

With worsening hurricane seasons and sea level rise issues, we don't want to be stuck with improper infrastructure and reliance on fossil fuels (which will be used up at some point!) as we move into the future. Bill 25 is a step in the right direction: it emphasizes clean energy and resiliency for our island community, to not only reduce the amount of greenhouse gas emissions we are contributing to climate change, but also to build resiliency and protection for our communities and families in the event of a catastrophic climate disaster such as a hurricane.

To my knowledge so far, there is one topic that has not been explicitly mentioned in the testimonies supporting Bill 25: climate equity.

What is climate equity in the context of Honolulu? While a multitude of sub-topics fall under climate equity, I would like to touch upon the basics: Providing affordable, equal and fair opportunities in the face of climate change for all community members, today and in the future. Issues of equity and empowerment must be at the forefront of climate action initiatives, or else, we are simply missing the mark in become a leader in climate action if we are not factoring climate equity into our policy and decision-making. As public servants, City Council Members are dedicated to providing services that benefit

the most people. If we are not committed to addressing such issues of equity today, it can make our problems even greater in the long-run. Intelligent, climate-smart investments are needed to address long-term affordability for ALL members of the community – rich and poor, today and tomorrow.

By not passing Bill 25, we are placing more barriers and burdens on vulnerable communities. From an intragenerational perspective, the lower-income families in Honolulu today will be negatively impacted: by incorporating sustainable energy requirements into newly constructed single-family homes, it is directly creating a pathway for lower-income families to engage in climate action and improve overall affordability in the long-term, where they otherwise might have had difficulty to. Over the lifetime of 15 years, homeowner savings range from ~\$4,196 to \$8,793 for solar hot water heaters. A similar argument can be made for EVs, incorporating EV Ready infrastructure helps transition into a cleaner transportation fleet and is cheaper to do now than waiting to do so in the future. Installing EV infrastructure at the time of construction is shown to be 91% less expensive compared to retrofitting after construction. Rest assured that these things will need to be done eventually and the cost-savings that would be realized by taking action now can be used to combat other issues in our community such as the housing and homelessness crises.

Written
Testimony

Regardless of socio-economic statuses, Bill 25 also addresses climate equity from an intergenerational perspective: with business as usual, our keiki tomorrow will have limited resources to work with due to the condition of the world we will be handing over to them. Delaying climate action, especially on activities that advocate for less reliance on dirty/toxic energy (coal and natural gas) is directly impacting our present and future communities of Honolulu: we are making it harder and more expensive for them to achieve and implement sustainability programs and policies. It is our duty to ensure this doesn't happen to them.

Investing in such climate adaptation projects enables the City to quantify specific projects it is working on in regard to climate action. As you may know, rating agencies are now factoring in climate change to assign ratings to cities and the action items within Bill 25 are a way to advance climate action projects– to protect our communities and infrastructures from climate disasters, reduce overall greenhouse gas emissions and create pride within Honolulu because we know we are doing the right thing for our constituents and our keiki's futures.

We must remember that we are a community looking out for one another and it will take a community of people to create, implement and execute effective climate action. We can't do this on our own. I urge you to pass Bill 25.

Thank you for the opportunity to submit testimony in strong support of Bill 25.

Sincerely,
Christine Pereira
(Personal testimony. Testimony not affiliated with any organization)

Testimony
Attachment

Accept Terms
and 1
Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name Gerrit B Osborne
 Phone 8082222450
 Email GerritOsborne@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Billo 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new

construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Gerrit B Osborne
1430 Ehupua St
Honolulu, HI 96821
808-222-2450

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Kathy Fay
 Phone 808 778 7238
 Email fay.kathy@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Testimony in Support of Bill 25 to Modernize Honolulu's Building Energy Code

Aloha Chair Menor, Vice Chair Waters and members of the committee,

Bill 25 helps our climate and clean energy future by updating the existing building efficiency code with new energy saving measures, such as better insulation, improved lighting, and smarter controls for new residential and commercial construction. This alone is estimated to save nearly \$1 billion in energy costs for O'ahu over the next 20 years.

Written
Testimony

Reducing our fossil fuel consumption and moving toward clean energy is critical for our island state.

Please advance Bill 25 with the EV-ready amendment.

Thank you for considering my testimony.

Kathy Fay

Testimony
Attachment

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and Agreement

1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Alana Rask
 Phone 808-429-0479
 Email 8alana8@gmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make

electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to “future-proof” new construction and accelerate our clean transportation future. I encourage you to think urgently about climate change and our collective future when voting.

Mahalo,

Alana Rask
Waikiki

Testimony

Attachment

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and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Travis Fukumitsu
 Phone 8082557068
 Email Fifth_d@hotmail.com
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear members of the committee:

I strongly support the amendments to the energy code. As an EV owner and condo resident who currently charges at public stations only I feel the mandatory provisions are important to more convenience and greater adoption. We need *level 2* charging in multi unit residential to keep up with the demand and usability however. Building with level 1 will cost significantly more to upgrade later if the owner or tenants desire!

Written Testimony Also in regard to renewable water heating, R403.5.5, I feel that it is way overdue to close the current variance loophole for gas heaters. This practice is totally circumventing the intent of the original law, to get Hawai'i off fossil energy, and causing thousands of tons of carbons to be emitted for the life of the new developments that are seeking exemptions en masse. Grid interactive with its benefits to bringing on more renewables and solar hot water are the way we should be going.

Thank you for the opportunity to share these points.

Sincerely

Travis Fukumitsu

Testimony Attachment
 Accept Terms and Agreement 1

IP: 192.168.200.67

From: CLK Council Info
Sent: Wednesday, August 21, 2019 11:00 AM
Subject: Public Infrastructure, Technology and Sustainability Speaker Registration/testimony

Speaker Registration/Testimony

Name Charles A Spence
Phone 9178254205
Email chuck@mauisunseeker.com
Meeting Date 08-22-2019
Council/PH Committee PITS
Agenda Item Bill 25 (2019)
Your position on the matter Support
Representing Self
Organization
Do you wish to speak at the hearing? No

To: The Committee on Zoning, Planning and Housing

From: Charles Spence

Date: Thursday, August 22, 2019

In strong support of Bill 25

Dear ZPH Chair Menor and Committee Members,

I support Bill 25. For the reasons below, I ask you to change all the bill's language about Level 1 charging to be Level 2 charging. I understand that Level 2 is fast becoming the standard nationwide, because it is several times faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

Written Testimony I ask you to reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for

people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then that housing will become even more affordable, because there will never be a gas bill. EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 50% or 75%. Vancouver's requirement is 100%. Twenty-five percent will only become inadequate in the next few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free.

Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential.

Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership! We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year.

That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up.

You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about saving consumers money.

Here's your chance to set an example. Take it!

Thank you for the opportunity to testify.

Charles Spence

Testimony
Attachment

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IP: 192.168.200.67

Speaker Registration/Testimony

Name Leslie T. Taniyama
 Phone 808 780-6418
 Email les@ifma-hi.org
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Relating to the Adoption of the State Energy Conservation Code
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Honolulu City Council
 Zoning, Planning and Housing Committee
 Support for Bill 25, "Relating to the Adoption of the State Energy Conservation Code"
 August 22, 2019, 9:00 AM hearing

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

Written
 Testimony

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's (Honolulu's) building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment.

In addition, this measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, helping to close the loophole that has allowed thousands of fossil gas water heaters to be installed in recent housing.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof"

new construction and accelerate our clean transportation future.

Please advance Bill 25 with this EV-ready amendment.

Thank you for considering my testimony.

Leslie T. Taniyama, V.P., Director
International Facility Management Associate,
Hawaii Chapter
Honolulu, Hawaii 96816

Testimony
Attachment

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and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Emily Barber
 Phone 8176579802
 Email Eabarber@swbell.net
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Aloha Chair Menor, Vice Chair Waters, and members of the Committee,

I am testifying in strong support of Bill 25, "Relating to the Adoption of the State Energy Conservation Code."

This is a critical clean energy and climate measure that would modernize the City & County of Honolulu's building energy code. This modernization updates Honolulu's existing building energy code—which is over thirteen years out of date—to increase occupant health and comfort while significantly reducing energy use for new homes and buildings. The proposed code revision reflects broad changes in technology, building materials, and best practices, while considering Honolulu's unique island and building environment. O'ahu needs this bill to pass to ensure we are doing everything we can to address the climate change crisis by reducing our emissions and promoting clean energy options!

Written
Testimony

This measure would ensure that new homes come equipped with either solar or high-efficiency water heaters, which we desperately need to meet our carbon reduction goals in the face of climate change. This close the loophole that has allowed thousands of gas water heaters to be installed in recent housing as well as provide SWH options those in low-sun zones that don't find it cost effective.

Finally, Bill 25 helps Honolulu make the transition to zero emission vehicles by requiring that a certain percentage of new parking stalls be "EV-ready" (with wiring and capacity for EV chargers to be installed in the future). This will help to make electric vehicles more accessible to residents and reduce the overall cost of our transition to clean transportation. This provision should be strengthened, however, by requiring Level 2 charging capacity in all new parking stalls (for commercial and multi-family buildings), as Vancouver and other cities have done. This will help to "future-proof" new construction and accelerate our clean transportation future. I encourage you

to think urgently about climate change and our collective future when voting.

Mahalo for considering my testimony in support of Bill 25.

Emily Barber, Kahala

Testimony
Attachment
Accept Terms
and Agreement ¹

IP: 192.168.200.67

Speaker Registration/Testimony

Name Randy Gonce
 Phone 8088295042
 Email rgonce@my.hpu.edu
 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item Bill 25
 Your position on the
 matter Support
 Representing Self
 Organization
 Do you wish to speak
 at the hearing? No

Aloha Committee,
 Passing this bill would be a positive direction for our state in terms of energy and
 climate policy. Not passing this bill would be a significant failure on our part.
 Please pass this measure.

Written Testimony

-Randy Gonce
 Masters Degree - Global Leadership in Sustainable Development

Testimony
 Attachment

Accept Terms and
 Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Earl Kim
Phone	8085240814
Email	mothra246@yahoo.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing Organization	Self
Do you wish to speak at the hearing?	No
Written Testimony	These proposed updates to the building code will contribute to Hawaii's energy efficiency. Better to build it in than to retrofit later on. This is common sense and creates better energy usage. I urge you to pass Bill 25.
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Victoria Anderson
 Phone 8083679296
 Email vanderso@hawaii.edu
 Meeting Date 08-22-2019
 Council/PH Committee Zoning
 Agenda Item Bill 25 (2019)
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Dear ZPH Chair Menor and Committee Members,

I strongly support Bill 25. Please change all the bill's language about Level 1 charging to Level 2 charging. Level 2 is becoming the standard nationwide. It's much faster, making EVs far more convenient and practical for homeowners and renters in a wide variety of situations. "Range anxiety" (fear one's battery won't last to the next charging station) should not prevent people from switching to an EV, which nearly everyone in Hawaii must eventually do.

Please reject self-serving, deceptive arguments like, "People should have 'a choice' of a gas water heater," and "The solar and EV-ready requirements make affordable housing unaffordable."

With or without Bill 25, very few homeowners will have a choice of water heater type. The people who currently have a choice are the developers: land owners and builders. Once they choose a type of water heater, and build 10 homes, or 500, people who buy the homes are stuck with the developers' choice, usually meaning eternal gas bills.

If actually given a choice, and all the facts, the vast majority of homeowners would choose renewable water heating, because it's far cheaper in the long term. To give homeowners that benefit, developers need an ordinance, or they won't make the right choice.

Also, letting anyone choose natural gas is not pono. The emissions from gas affect literally everyone on the planet. No one has a right to "choose" for the rest of us. It's like "choosing" to blast heavy metal music at 3 a.m., or "choosing" to drive on the left. The same goes for people who prefer gas cooking.

As to affordable housing, Bill 25's requirements will increase affordable housing costs for three to four years while the solar water installation cost is being paid off, but then

that housing will become even more affordable, because there will never be a gas bill.

EV-readiness adds a slight cost, but it's becoming a part of 21st century life. This argument is like saying you could make housing more affordable if you just left out the electricity and plumbing.

Please also raise the EV-ready parking stall amount in item 17 from 25% to 75%.

Vancouver's requirement is 100%. Twenty-five percent will become inadequate in just a few years. Let's not go through this again then.

Items 17, 28 and 31 in Bill 25--the solar water heating and EV-readiness parts--will accomplish three important things:

1. Lower the cost of living for long-term Hawaii residents. Paying a permanent monthly bill for natural gas to heat water in sunny Hawaii is just silly. Solar water heating pays for itself in three or four years, and residents don't have a monthly gas bill. Ever. An electric water heater accounts for over 25% of the average electric bill. The sun is free. Electric vehicles (EVs) will replace gas cars before long. Hawaii residents will need some way to charge at home. How will they afford to install the electrical equipment needed for that? Installing it is far less expensive during construction. Don't force new homeowners to spend thousands of dollars to retrofit their homes for the EV they will be driving within the next decade or two.

2. Help to fight our climate crisis. Those who want a choice of gas water heating should consider that the methane they would burn affects all of us. Their kokua is not just appreciated, it's essential. Hawaii needs to adopt EVs widely and quickly if we hope to meet our clean energy goals. The top two reasons people don't buy an EV right now are range anxiety, and too few charging stations in general [1]. Remove these barriers, and people will adopt. Cutting our greenhouse gas emissions depends on it.

3. Show some leadership! We're all very proud to be the first state to commit to 100% clean energy, but what progress have we made? The Federal government is in love with coal. The Hawaii legislature did very close to nothing this year. That leaves you. Are we all waiting for a giant hurricane to wipe out Waikiki? Are you waiting for Kam Highway to fall into the ocean completely? We know now that clean energy by 2045 is too little, too late, and it's past time to move the goal up. Way up. You, and state lawmakers, are supposed to write laws to help protect us from sea level rise, catastrophic hurricanes, and rain bombs. This bill, and stronger amendments, deserve support from anyone with the least concern about climate change, or about saving consumers money.

Here's your chance to set a great example. Please do the right thing for our planet and take it!

Sincerely,

Victoria B. Anderson

Written
Testimony

Testimony
Attachment

Accept Terms 1
and

Agreement

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Dyson
Phone	8084627570
Email	cheedyson@gmail.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
Written Testimony	
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name	Denise Boisvert
Phone	415-845-5495
Email	infofordenise@yahoo.com
Meeting Date	08-22-2019
Council/PH Committee	Zoning
Agenda Item	Bill 25
Your position on the matter	Support
Representing	Self
Organization	
Do you wish to speak at the hearing?	No
	I fully SUPPORT Bill 25 and hope the Honolulu City Council does as well.
Written Testimony	It is astonishing that there are still people in this world who deny the evidence of climate change.
	Please don't deny the people of O'ahu the opportunity to do something about it.
Testimony Attachment	
Accept Terms and Agreement	1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Anita Yokota
 Phone 808 428 9657
 Email anita96795@gmail.com
 Meeting Date 08-22-19yy
 Council/PH Committee Zoning
 Agenda Item Bill 25
 Your position on the matter Support
 Representing Self
 Organization
 Do you wish to speak at the hearing? No

Written Testimony Climate Change is the biggest threat to life as we know it. We have known about Climate Change for decades and have chosen to dismiss it or minimize it at best. We are at a critical juncture now, and Bill 25 is one small step in the right direction. We need to take each of our steps from now on in "the right direction". We need to pass Bill 25 to make homes more energy efficient and encourage the use of more energy efficient transportation. Mahalo, Anita Yokota

Testimony Attachment
 Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name Kim Jorgensen
Phone 415-845-5495
Email hawaiiicondo@yahoo.com
Meeting Date 08-22-2019
Council/PH Committee Zoning
Agenda Item Bill 25
Your position on the matter Support
Representing Self
Organization

Do you wish to speak at the hearing? No

Written Testimony Clean energy helps fight climate change. We need to do everything we can now before it is too late.

Please support Bill 25.

Testimony Attachment

Accept Terms and Agreement 1

IP: 192.168.200.67

Speaker Registration/Testimony

Name ROBERT A. FARROW
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 Meeting Date 08-22-2019
 Council/PH
 Committee Zoning
 Agenda Item BILL 25
 Your position
 on the matter Comment
 Representing Self
 Organization
 Do you wish to
 speak at the
 hearing? No

Written Testimony

To enact a bill, ordinance, regulation, or law that excludes an energy source of any kind is environmentally unsound and myopic. Your moral and ethical duty dictates that matters concerning "carbon foot prints" or undesirable emissions, you must always be on the search for the lesser of the necessary evils. By excluding one or more evil in order to facilitate another is an evil unto itself. The point being, keep the options open. All fuels have economic merit and environmentally comparative merit. All fuels come with evils. Your duty is to provide regulating structure to optimize the lesser evils, and avoid the pitfalls putout there by the averse venders with scientifically proven evils.

Thank you for your time and remember be it: begsse, bunker fuel, cannabis(Hemp), coal, natural gas, plastic, urban trash, or any other combustible in the end its BTU creation.

Testimony Attachment

Accept Terms
and Agreement 1

IP: 192.168.200.67